JAN 91262

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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: R Gitomer Examiner #: 69630 Date: 4/10/03

Art Unit: 1651 Phone Number 30 8-0732 Serial Number: 10/017,625

Mail Box and Bldg/Room Location: 11301 / 11011 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: 9/3/1996

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

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jan.delaval@uspto.gov

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Searcher: Jan	NA Sequence (#)		STN	✓
Searcher Phone #: 4498	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)		Questel/Orbit	
Date Searcher Picked Up: 4/24/03	Bibliographic	✓	Dr.Link	
Date Completed: 4/24/03	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time: 20	Patent Family		WWW/Internet	
Online Time: + 70	Other		Other (specify)	

PTO-1590 (8-01)

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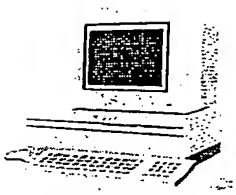

Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact ***the BioTech-Chem searcher*** who conducted the search ***or contact***:

Mary Hale, Supervisor, 308-4258
CM-1 Room 1E01

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* *(Example: 1610)*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found**:*
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Search results were not useful in determining patentability or understanding the invention.

Other Comments:

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L100 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN **2003:117975** HCAPLUS
DN **138:166253**
TI **Media** and methods for cultivation and detection of fastidious microorganisms
IN Breitschwerdt, Edward B.; Sontakke, Sushama
PA North Carolina State University, USA
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12N
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 10, 13, 14
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003012058	A2	20030213	WO 2002-US24329	20020731

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-309688P P 20010802
AB The present invention provides **culture media** and methods for **culturing** organisms, preferably microorganisms, more preferably fastidious microorganisms. Also provided are methods of isolating and detecting organisms using the inventive **culture media**. Microorganisms were isolated from various clin. samples from canines and felines and grown on D2 insect growth **medium**.
ST **culture media** cultivation detection fastidious

microorganism; cat fastidious microorganism clin sample **culture**; dog fastidious microorganism clin sample **culture**

IT Fatty acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Me esters, of cod liver oil; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Proteobacteria
(alpha group, Rasbo bacterium; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Anemia (disease)
(autoimmune hemolytic anemia, fastidious microorganism assocd. with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Samples
(biol., of mammal; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Disease, animal
(cat scratch disease, fastidious microorganism assocd. with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Nervous system
(central, disease, fastidious microorganism assocd. with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Chemistry
(chem. compds., reducing growth or viability of fastidious microorganism, identification of; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Fatigue, biological
(chronic fatigue syndrome, fastidious microorganism assocd. with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Liver, disease
(chronic, fastidious microorganisms **culture** from; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Lymph
(chyle, feline chylothorax fluid, fastidious microorganisms **culture** from cats with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Mammalia
(**culture medium** contg. lipids of brain tissue of; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Brain
(**culture medium** contg. lipids of mammalian tissue of; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Antioxidants
Reducing agents
(**culture medium** contg.; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Amino acids, biological studies
Hemins
Lipids, biological studies
Minerals, biological studies
Nucleotides, biological studies
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**culture medium** contg.; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**culture medium** free of; **media** and
methods for cultivation and detection of fastidious microorganisms)

IT Liquids
Solids
(**culture medium**; **media** and methods for
cultivation and detection of fastidious microorganisms)

IT Prostate gland
Urinary tract
(disease, fastidious microorganism assocd. with; **media** and
methods for cultivation and detection of fastidious microorganisms)

IT Pleura
(effusion, fastidious microorganisms **culture** from dogs;
media and methods for cultivation and detection of fastidious
microorganisms)

IT Body fluid
(effusion; **media** and methods for cultivation and detection of
fastidious microorganisms)

IT Heart, disease
(endocarditis, fastidious microorganisms **culture** from canines
or felines with **culture**-neg.; **media** and methods for
cultivation and detection of fastidious microorganisms)

IT Yeast
(ext.; **media** and methods for cultivation and detection of
fastidious microorganisms)

IT Cystic fibrosis
Heart, disease
Hypertension
Kidney, disease
Liver, disease
Mastitis
Neoplasm
(fastidious microorganism assocd. with; **media** and methods for
cultivation and detection of fastidious microorganisms)

IT Arachnida
Insecta
(fastidious microorganism borne by; **media** and methods for
cultivation and detection of fastidious microorganisms)

IT Immune system
(fastidious microorganism impaired by; **media** and methods for
cultivation and detection of fastidious microorganisms)

IT Canidae
Cat (Felis catus)
Cattle
Dog (Canis familiaris)
Goat
Horse (Equus caballus)
Lagomorpha
Primates
Rodentia
Sheep
Swine
(fastidious microorganism pathogenic in; **media** and methods
for cultivation and detection of fastidious microorganisms)

IT Biological transport
(fastidious microorganism with defects in nutrient; **media** and
methods for cultivation and detection of fastidious microorganisms)

IT Nutrients
(fastidious microorganism with defects in transport of; **media**
and methods for cultivation and detection of fastidious microorganisms)

IT Metabolism, microbial
(fastidious microorganism with defects in; **media** and methods
for cultivation and detection of fastidious microorganisms)

IT Stress, microbial
(fastidious microorganism; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Bacteria (Eubacteria)
Microorganism
(fastidious; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Cod liver oil
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(fatty acid Me esters; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Disease, animal
(feline urol. syndrome, fastidious microorganisms **culture** from cats with; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Abdomen
Thorax
(fluid of; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Bioassay
(for compds. binding to fastidious microorganism; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Lactalbumins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hydrolyzates; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Adrenal cortex, disease
(hyperadrenocorticism, fastidious microorganism assocd. with; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Protein hydrolyzates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(lactalbumin hydrolyzates; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Pathogen
(mammalian; **media** and methods for cultivation and detection of fastidious microorganisms)
IT Aeromonas hydrophila
Afipia
Ascitic fluid
Bacillus clausii
Bartonella
Bartonella clarridgeiae
Bartonella henselae
Bartonella vinsonii berkhoffii
Bartonella weissii
Blood
Blood plasma
Blood products
Blood serum
Body fluid
Bordetella bronchiseptica
Brucella
Cerebrospinal fluid
Corynebacterium
Culture media
Escherichia coli
Exudate
Hydrogenophaga
Lymph

Mycobacterium kansasii
Nanobacterium
Pleural fluid
Proteobacteria
Proteus mirabilis
Pseudomonas aeruginosa
Pseudomonas plecoglossicida
Ralstonia pickettii
Salmonella typhimurium
Sputum
Streptococcus pneumoniae
Streptococcus thermophilus
Synovial fluid
Urine
(**media** and methods for cultivation and detection of fastidious microorganisms)

IT Phosphatidylcholines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**media** and methods for cultivation and detection of fastidious microorganisms)

IT Encephalitis
(meningoencephalitis, granulomatous, **culturing** synovial fluid of dog with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Cell wall
(microorganism deficient in; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Lung
(mucus of; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Arthritis
(neutrophilic, **culturing** synovial fluid of dog with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT pH
(of **culture medium**; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Diagnosis
(of disorder or infection with fastidious microorganism; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(org., **culture medium** contg.; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Arthritis
(polyarthritis, fastidious microorganism assocd. with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Filtration
(prior to **culturing**; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Kidney, disease
(protein-losing, fastidious microorganisms **culture** from; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Mucus
(pulmonary; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Kidney, disease
(pyelonephritis; **media** and methods for cultivation and detection of fastidious microorganisms)

IT **Culture media**

(selective; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Carbohydrates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(simple, **culture medium** contg.; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Platelet (blood)
(thrombocytopenia, fastidious microorganism assocd. with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Antibodies
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(to fastidious microorganism; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Body fluid
(transudate; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Infection
(with fastidious microorganism, diagnosis of; **media** and methods for cultivation and detection of fastidious microorganisms)

IT Globulins, biological studies
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(.gamma.-, hypergammaglobulinemia, splenomegaly, **culturing** blood of cat with; **media** and methods for cultivation and detection of fastidious microorganisms)

IT 53-59-8, NADP 53-84-9, NAD 1192-20-7D, Homoserine lactone, acyl derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**culture medium** contg.; **media** and methods for cultivation and detection of fastidious microorganisms)

IT 50-69-1, Ribose 50-81-7, L-Ascorbic acid, biological studies **50-89-5**, Thymidine, biological studies 50-99-7, Dextrose, biological studies 51-35-4, Hydroxy-L-proline **52-90-4**, L-**Cysteine**, biological studies 53-57-6, .beta.-NADPH 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-81-5, Glycerol, biological studies 56-84-8, L-Aspartic Acid, biological studies 56-85-9, L-Glutamine, biological studies 56-86-0, L-Glutamic Acid, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 57-88-5, Cholesterol, biological studies 58-56-0, Pyridoxine hydrochloride 58-85-5 58-95-7, D-.alpha.-Tocopherol Acetate 59-30-3, Folic Acid, biological studies 59-67-6, Niacin, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 67-03-8, Thiamine hydrochloride 67-48-1, **Choline Chloride** 68-19-9, Vitamin B12 69-79-4, Maltose 70-18-8, Glutathione, biological studies 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-32-5, L-Isoleucine, biological studies 77-92-9, Citric Acid, biological studies 83-88-5, Riboflavin, biological studies 85-61-0, Coenzyme A, biological studies 87-89-8, myo-Inositol 97-67-6, L-Malic Acid 107-95-9, .beta.-Alanine 110-15-6, Succinic Acid, biological studies 110-17-8, Fumaric Acid, biological studies 127-17-3, Pyruvic Acid, biological studies 137-08-6, **Calcium** D-**Pantothenate** 144-55-8, **Sodium** Bicarbonate, biological studies 147-85-3, L-Proline, biological studies 150-13-0, PABA 154-87-0, Cocarboxylase 302-84-1, Serine 328-50-7, .alpha.-Ketoglutaric Acid 657-27-2, L-Lysine hydrochloride 838-07-3, 5-Methyl-2'-Deoxycytidine 958-09-8, 2'-Deoxyadenosine 961-07-9, 2'-Deoxyguanosine 1119-34-2, L-Arginine

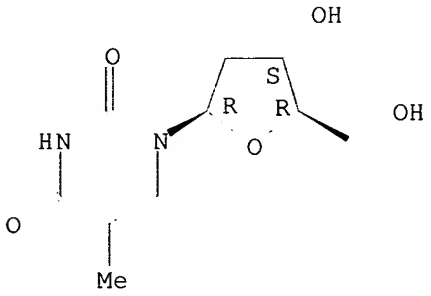
hydrochloride 1310-73-2, **Sodium** hydroxide, biological studies 1336-21-6, Ammonium hydroxide 3992-42-5, 2'-Deoxycytidine monohydrochloride 7365-45-9, HEPES 7447-39-4, Copper **chloride** (CuCl2), biological studies 7447-40-7, **Potassium Chloride**, biological studies 7487-88-9, **Magnesium** Sulfate, biological studies 7512-17-6, N-Acetyl-D-Glucosamine 7558-79-4 7558-80-7, **Sodium Phosphate**, Monobasic 7646-79-9, Cobalt **chloride**, biological studies 7646-85-7, Zinc **chloride**, biological studies 7720-78-7 7786-30-3, **Magnesium Chloride**, biological studies 9005-65-6, Polyoxyethylenesorbitan Monooleate 9012-36-6, Agarose 10043-52-4, **Calcium Chloride**, biological studies 10597-89-4, N-Acetylmuramic Acid 11104-38-4, Vitamin K1 12027-67-7, Ammonium molybdate 30925-07-6, L-Cystine dihydrochloride 69847-45-6, L-Tyrosine disodium salt 74674-72-9 106392-12-5, Pluronic F-68
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**media** and methods for cultivation and detection of fastidious microorganisms)

IT 497129-98-3 497129-99-4 497130-00-4 497130-01-5 497130-02-6 497130-03-7 497130-04-8 497130-05-9
RL: PRP (Properties)
(unclaimed sequence; **media** and methods for cultivation and detection of fastidious microorganisms)

IT **50-89-5**, Thymidine, biological studies **52-90-4**, L-**Cysteine**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**media** and methods for cultivation and detection of fastidious microorganisms)

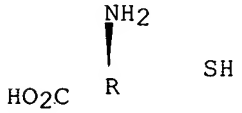
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L100 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN **2001:353374** HCAPLUS
DN **135:149238**

TI **Pantothenic acid** protects Jurkat cells against ultraviolet light-induced apoptosis
AU Slyshenkov, V. S.; Piwocka, K.; Sikora, E.; Wojtczak, L.
CS Nencki Institute of Experimental Biology, Polish Academy of Sciences, Warsaw, Pol.
SO Free Radical Biology & Medicine (2001), 30(11), 1303-1310
CODEN: FRBMEH; ISSN: 0891-5849
PB Elsevier Science Inc.
DT Journal
LA English
CC 8-9 (Radiation Biochemistry)
AB Human leukemic T **lymphocytes** (Jurkat cells) were induced to undergo apoptosis by brief irradn. with UV C light (254 nm). This was accompanied by accumulation of lipid peroxidn. products in the form of conjugated dienes, a decrease of total glutathione content, and a shift of its redox state towards the oxidized form. Preincubation of the cells with 1 mM **pantothenate** resulted in a significant elevation of total glutathione content of the cells, reaching its max. level, 160% of the control, after 3 h. Similar increase was obsd. after preincubation with 5 mM **N-acetylcysteine**, a known precursor of glutathione. Both **pantothenic acid** and **N-acetylcysteine** alleviated the UV-induced decrease of glutathione content, diminished lipid peroxidn., and partly protected the cells against apoptosis produced by UV irradn.
ST **pantothenate** UVC apoptosis lipid peroxidn glutathione
IT Peroxidation
(lipid; **pantothenic acid** protection against UV-induced apoptosis)
IT Antioxidants
Apoptosis
Oxidative stress, biological
Radioprotectants
UV C radiation
(**pantothenic acid** protection against UV-induced apoptosis)
IT Lipids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(peroxidn.; **pantothenic acid** protection against UV-induced apoptosis)
IT **616-91-1, N-Acetylcysteine**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**pantothenic acid** protection against UV-induced apoptosis)
IT **79-83-4, Pantothenic acid** 867-81-2, **Sodium Pantothenate**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**pantothenic acid** protection against UV-induced apoptosis)
IT 70-18-8, Glutathione, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**pantothenic acid** protection against UV-induced apoptosis)
RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(49) Vaxman, F; Eur Surg Res 1995, V27, P158 MEDLINE
(50) Voehringer, D; Free Radic Biol Med 1999, V27, P945 HCAPLUS
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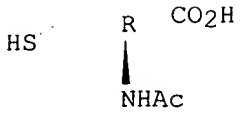
IT **616-91-1, N-Acetylcysteine**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**pantothenic acid** protection against UV-induced apoptosis)

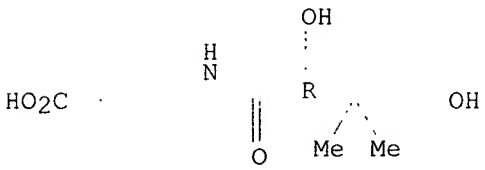
RN 616-91-1 HCAPLUS
CN L-Cysteine, N-acetyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **79-83-4, Pantothenic acid**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**pantothenic acid** protection against UV-induced apoptosis)
RN 79-83-4 HCAPLUS
CN .beta.-Alanine, N-[(2R)-2,4-dihydroxy-3,3-dimethyl-1-oxobutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L100 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN **1998:239275** HCAPLUS
DN **128:280591**
TI Animal cell **culture media** containing plant-derived nutrients
IN Price, Paul J.; Gorfien, Steve; Danner, Douglas
PA Life Technologies, Inc., USA; Price, Paul J.; Gorfien, Steve; Danner, Douglas
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12N005-00
ICS A61K035-72; A61K035-78
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 11, 13
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9815614	A1	19980416	WO 1997-US18255	19971010
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9747516	A1	19980505	AU 1997-47516	19971010
	EP 954563	A1	19991110	EP 1997-910043	19971010
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6103529	A	20000815	US 1997-949142	19971010
	JP 2001501830	T2	20010213	JP 1998-517748	19971010
PRAI	US 1996-28197P	P	19961010		

WO 1997-US18255 W 19971010

AB The present invention provides **serum-free** cell **culture media** formulations which are capable of supporting the in vitro cultivation of animal cells. The **media** comprise at least one nutrient of plant derivation, such as at least one plant peptide and/or at least one plant lipid and/or at least one plant fatty acid. The **media** may further optionally comprise an enzymic digest or ext. of yeast cells. The present invention also provides methods of cultivating animal cells in vitro using these cell **culture media** formulations. The application of plant-derived nutrients can reduce the use of serum or animal exts. in tissue **culture** applications.

ST animal tissue **culture** plant derived nutrient

IT Animal cell line
(293; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(BHK-21; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(BHK; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(CHO; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(COS-7; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(COS; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(K562; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(M1; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(MDBK; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(MDCK; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(MRC-5; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(Molt 4; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(NS-1; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(PER-C6; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(Sp2/0; animal cell **culture media** contg. plant-derived nutrients)

IT Animal cell line
(Vero; animal cell **culture media** contg. plant-derived nutrients)

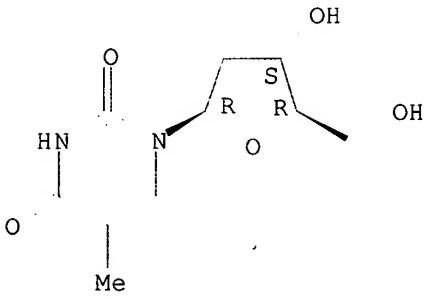
IT Animal cell line
(WEHI; animal cell **culture media** contg.

plant-derived nutrients)
IT Animal cell line
(WI-38; animal cell **culture media** contg. plant-derived nutrients)
IT Animal cell
Animal tissue **culture**
Bakers' yeast
Bird (Aves)
Culture media
Fish
HeLa cell
Hybridoma
Insect (Insecta)
Mammal (Mammalia)
Plant (Embryophyta)
Potato (Solanum tuberosum)
Rice (Oryza sativa)
Soybean (Glycine max)
Spodoptera
Trichoplusia
Virus
Wheat
Yeast
(animal cell **culture media** contg. plant-derived nutrients)
IT Amino acids, biological studies
Mineral elements, biological studies
Proteins, general, biological studies
Salts, biological studies
Trace element nutrients
Vitamins
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(animal cell **culture media** contg. plant-derived nutrients)
IT Fatty acids, biological studies
Lipids, biological studies
Peptides, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(animal cell **culture media** contg. plant-derived nutrients)
IT Nutrients
(macronutrients; animal cell **culture media** contg. plant-derived nutrients)
IT Nutrients
(micronutrients; animal cell **culture media** contg. plant-derived nutrients)
IT 62229-50-9, EGF
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(animal cell **culture media** contg. plant-derived nutrients)
IT 50-14-6, Vitamin D2 **50-89-5**, Thymidine, biological studies 50-99-7, D-Glucose, biological studies **52-90-4**, L-**Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-65-5, 5'-ATP, biological studies 56-84-8, L-Aspartic acid, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 56-89-3, L-Cystine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 58-27-5, Menadione 58-85-5, Biotin

59-30-3, Folic acid, biological studies 59-43-8, Thiamine, biological studies 59-67-6, Nicotinic acid, biological studies 60-18-4, L-Tyrosine, biological studies 60-33-3, Linoleic acid, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-23-6, Pyridoxine 66-22-8, Uracil, biological studies 66-72-8, Pyridoxal 67-48-1, **Choline chloride** 68-19-9, Vitamin B12 68-94-0, Hypoxanthine 69-89-6, Xanthine 70-18-8, Glutathione, biological studies 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 83-88-5, Riboflavin, biological studies 87-89-8, myo-Inositol 98-92-0, Niacinamide 110-60-1, Putrescine 112-80-1, Oleic acid, biological studies 112-85-6, Behenic acid 112-86-7, Erucic acid 113-24-6, **Sodium** pyruvate 124-07-2, Caprylic acid, biological studies 127-47-9, Vitamin A acetate 137-08-6 141-43-5, Ethanolamine, biological studies 143-07-7, Lauric acid, biological studies 143-74-8, Phenol red 144-55-8, **Sodium** bicarbonate, biological studies 147-85-3, L-Proline, biological studies 150-13-0 321-30-2, Adenine sulfate 334-48-5, Capric acid 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 506-30-9, Arachidic acid 533-67-5, Deoxyribose 543-80-6, Barium acetate 544-63-8, Myristic acid, biological studies 557-59-5, Lignoceric acid 1071-23-4, Phosphoethanolamine 1077-28-7, 1,2-Dithiolane-3-pentanoic acid 1310-53-8, Germanium oxide, biological studies 2002-24-6, Ethanolamine hydrochloride 6834-92-0, **Sodium** silicate (Na2SiO3) 7365-45-9, HEPES 7429-90-5, Aluminum, biological studies **7439-89-6**, **Iron**, biological studies 7439-96-5, Manganese, biological studies 7439-98-7, Molybdenum, biological studies 7440-02-0, Nickel, biological studies 7440-17-7, Rubidium, biological studies 7440-21-3, Silicon, biological studies 7440-22-4, Silver, biological studies 7440-31-5, Tin, biological studies 7440-32-6, Titanium, biological studies 7440-39-3, Barium, biological studies 7440-43-9, Cadmium, biological studies 7440-47-3, Chromium, biological studies 7440-48-4, Cobalt, biological studies 7440-50-8, Copper, biological studies 7440-56-4, Germanium, biological studies 7440-62-2, Vanadium, biological studies 7440-66-6, Zinc, biological studies 7440-67-7, Zirconium, biological studies 7447-40-7, **Potassium chloride**, biological studies 7487-88-9, **Magnesium** sulfate, biological studies 7550-45-0, Titanium **chloride**, biological studies 7553-56-2, Iodine, biological studies 7558-79-4, Disodium hydrogen **phosphate** 7558-80-7, **Sodium** dihydrogen **phosphate** 7646-79-9, Cobalt **chloride**, biological studies 7647-14-5, **Sodium chloride**, biological studies 7681-11-0, **Potassium** iodide, biological studies 7681-49-4, **Sodium** fluoride, biological studies 7699-43-6, Zirconium dichloride monoxide 7720-78-7, **Iron** sulfate (FeSO4 7726-95-6, Bromine, biological studies 7733-02-0, Zinc sulfate 7758-02-3, **Potassium** bromide, biological studies 7758-98-7, Copper sulfate, biological studies 7761-88-8, Silver nitrate, biological studies 7772-99-8, Tin **chloride**, biological studies 7773-01-5, Manganese **chloride** 7782-41-4, Fluorine, biological studies 7782-49-2, Selenium, biological studies 7783-00-8, Selenious acid 7786-30-3, **Magnesium chloride**, biological studies 7786-81-4, Nickel sulfate 7791-11-9, Rubidium **chloride**, biological studies 9004-10-8, Insulin, biological studies 10043-01-3, Aluminum sulfate 10043-52-4, **Calcium chloride**, biological studies 10124-36-4, Cadmium sulfate 10421-48-4, Ferric nitrate 12027-67-7, Ammonium molybdate ((NH4)6Mo7O24) 13718-26-8, **Sodium** vanadate (NaVO3) 14489-25-9, Chromium sulfate 15431-40-0, **Magnesium** ascorbate 28633-45-6, Ferric citrate

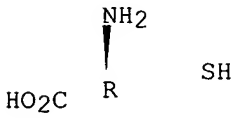
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(animal cell **culture media** contg. plant-derived nutrients)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; GIBCOBRL LIFE TECHNOLOGIES CATALOGUE AND REFERENCE GUIDE 1993, P1
(2) Durnford; US 5324524 A 1994 HCAPLUS
(3) Maurer, H; Animal Cell Culture, A Practical Approach 1986, P13
(4) Sakata; US 5318906 A 1994 HCAPLUS
(5) Soken; JP 07165524 A 1995
(6) Wyss, C; Somatic Cell Genetics 1979, V5(1), P23 HCAPLUS
IT **50-89-5**, Thymidine, biological studies **52-90-4**, L-**Cysteine**, biological studies **7439-89-6**, **Iron**, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(animal cell **culture media** contg. plant-derived nutrients)
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

L100 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:176040 HCAPLUS
DN 128:228255
TI Assessment of intracellular **cysteine** and glutathione concentrations
IN **Crawford, J. Fred**
PA Research Development Foundation, USA

SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q001-02
ICS C12N005-00
CC 9-11 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9810092	A1	19980312	WO 1997-US15451	19970903
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9742464	A1	19980326	AU 1997-42464	19970903
	AU 718816	B2	20000420		
	EP 931163	A1	19990728	EP 1997-940761	19970903
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	NZ 334327	A	20000623	NZ 1997-334327	19970903
	CN 1268977	A	20001004	CN 1997-197585	19970903
	JP 2001500011	T2	20010109	JP 1998-512821	19970903
	US 2002068270	A1	20020606	US 2001-17625	20011213
PRAI	US 1996-25373P	P	19960903		
	US 1997-922279	B3	19970903		
	WO 1997-US15451	W	19970903		

AB A medium and method for culturing **lymphocytes** are provided for detg. intracellular concn. of glutathione or **cysteine** in human **lymphocytes** to provide biochem. anal. of an individual's capability of dealing with oxidative stress. The medium is a buffered **serum-free** soln. having a pH of from about 6.8 to 7.6 and contg. a carbohydrate which is glucose or a compd. capable of producing glucose in **lymphocytes**, **pantothenic acid**, **choline** or a substance capable of producing **choline** in **lymphocytes**, inorg. ions including **chloride**, **phosphate**, **calcium**, **magnesium**, **potassium**, **sodium** and **iron** , L-Buthionine-[S.R.]-Sulfoximine, deionized water and a mitogen to stimulate **lymphocytes**. When detg. **cysteine** concn., the medium addnl. contains **N-Acetyl-L Cysteine** and **Cumene Hydroperoxide**. The method is carried out by inoculating the culture medium with **lymphocytes** from an individual, incubating the **lymphocytes** in the medium and comparing the response of the **lymphocytes** with an av. response of **lymphocytes** from a control group of individuals.

ST intracellular **cysteine** glutathione concn

IT Animal tissue culture
Mitogens
Oxidative stress, biological
(assessment of intracellular **cysteine** and glutathione concns.)

IT Amino acids, biological studies
Antioxidants
Carbohydrates, biological studies
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(assessment of intracellular **cysteine** and glutathione concns.)

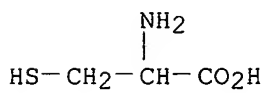
IT 70-18-8, Glutathione, analysis **3374-22-9, Cysteine**
RL: ANT (Analyte); ANST (Analytical study)
(assessment of intracellular **cysteine** and glutathione concns.)

IT 50-99-7, D-Glucose, biological studies 56-40-6, Glycine, biological studies 56-45-1, L-Serine, biological studies 58-05-9, Folinic acid 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 59-51-8, Methionine 59-67-6, Nicotinic acid, biological studies 60-18-4, Tyrosine, biological studies **62-49-7, Choline** 68-19-9, Vitamin b12 70-54-2, Lysine 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-24-5, Adenine, biological studies **79-83-4, Pantothenic acid 80-15-9, Cumene Hydroperoxide** 83-88-5, Riboflavin, biological studies 87-89-8, myo-Inositol 98-92-0, Nicotinamide 127-17-3, biological studies 150-30-1, Phenylalanine 328-39-2, Leucine 443-79-8, Isoleucine **616-91-1, N-Acetyl-L-Cysteine** 4998-57-6, Histidine 6899-04-3, Glutamine 7200-25-1, Arginine **7439-89-6, Iron**, biological studies **7439-95-4, Magnesium**, biological studies **7440-09-7, Potassium**, biological studies **7440-23-5, Sodium**, biological studies **7440-70-2, Calcium**, biological studies 7732-18-5, Water, biological studies 8059-24-3, Vitamin b6 **14265-44-2, Phosphate**, biological studies **16887-00-6, Chloride**, biological studies 83730-53-4, L-Buthionine-Sulfoximine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(assessment of intracellular **cysteine** and glutathione concns.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bounous; US 5290571 A 1994 HCAPLUS
(2) Darfler; US 4927762 A 1990 HCAPLUS
(3) Griffith; US 5171885 A 1992 HCAPLUS
(4) Ponting; US 5405772 A 1995 HCAPLUS
(5) Torishima; US 5326699 A 1994

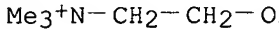
IT **3374-22-9, Cysteine**
RL: ANT (Analyte); ANST (Analytical study)
(assessment of intracellular **cysteine** and glutathione concns.)

RN 3374-22-9 HCAPLUS
CN Cysteine (9CI) (CA INDEX NAME)



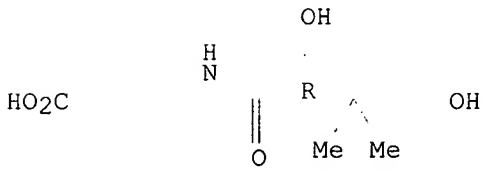
IT **62-49-7, Choline 79-83-4, Pantothenic acid 80-15-9, Cumene Hydroperoxide 616-91-1, N-Acetyl-L-Cysteine 7439-89-6, Iron**, biological studies **7439-95-4, Magnesium**, biological studies **7440-09-7, Potassium**, biological studies **7440-23-5, Sodium**, biological studies **7440-70-2, Calcium**, biological studies **14265-44-2, Phosphate**, biological studies **16887-00-6, Chloride**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(assessment of intracellular **cysteine** and glutathione concns.)

RN 62-49-7 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)

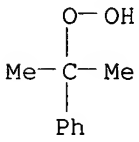


RN 79-83-4 HCAPLUS
CN .beta.-Alanine, N-[(2R)-2,4-dihydroxy-3,3-dimethyl-1-oxobutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

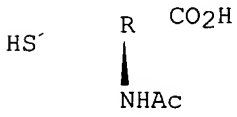


RN 80-15-9 HCAPLUS
CN Hydroperoxide, 1-methyl-1-phenylethyl (9CI) (CA INDEX NAME)



RN 616-91-1 HCAPLUS
CN L-Cysteine, N-acetyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

RN 7440-09-7 HCAPLUS
CN Potassium (8CI, 9CI) (CA INDEX NAME)

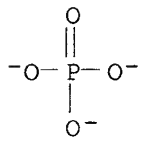
RN 7440-23-5 HCAPLUS
CN Sodium (8CI, 9CI) (CA INDEX NAME)

Na

RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

RN 14265-44-2 HCAPLUS
CN Phosphate (8CI, 9CI) (CA INDEX NAME)



RN 16887-00-6 HCAPLUS
CN Chloride (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Cl^-

L100 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:163670 HCAPLUS
DN 128:215266
TI **Serum-free** mammalian cell culture medium, and uses thereof
IN Gorfien, Stephen F.; Fike, Richard M.; Dzimian, Joyce L.; Godwin, Glenn P.; Price, Paul J.; Epstein, David A.; Gruber, Dale; McClure, Don
PA Life Technologies, Inc., USA; Gorfien, Stephen F.; Fike, Richard M.; Dzimian, Joyce L.; Godwin, Glenn P.; Price, Paul J.; Epstein, David A.; Gruber, Dale; McClure, Don
SO PCT Int. Appl., 121 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12N005-00
ICS C12N005-02; C12N005-06; C12N005-08; C12N005-10
CC 9-11 (Biochemical Methods)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9808934	A1	19980305	WO 1997-US15296	19970902

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9743305 A1 19980319 AU 1997-43305 19970902
EP 953041 A1 19991103 EP 1997-941382 19970902
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
JP 2000517188 T2 20001226 JP 1998-511986 19970902
PRAI US 1996-22881P P 19960830
US 1997-56829P P 19970822
US 1997-920875 A 19970829
WO 1997-US15296 W 19970902

AB The present invention provides a cell culture medium formulation that supports the in vitro cultivation, particularly in suspension, of mammalian cells, particularly epithelial cells and fibroblast cells, and methods for cultivating mammalian cells in suspension in vitro, using these media. The media comprise a basal medium and a polyanionic or polyanionic compd., preferably a polysulfonated or polysulfated compd., and more preferably dextran sulfate. The present invention also provides chem. defined, protein-free eukaryotic cell culture media comprising an **iron** chelate and zinc, which is capable of supporting the growth (and particularly the high-d. growth of mammalian cells) in suspension culture, increasing the level of expression of recombinant protein in cultured cells, and/or increasing virus prodn. in cultured cells.

ST serum mammal cell culture medium

IT Uterus
Uterus
(cervix, epithelium; **serum-free** mammalian cell culture medium, and uses thereof)

IT Chemistry
(chem. compds., Polyanionic; **serum-free** mammalian cell culture medium, and uses thereof)

IT Chemistry
(chem. compds., Polysulfated; **serum-free** mammalian cell culture medium, and uses thereof)

IT Chemistry
(chem. compds., Polysulfonated; **serum-free** mammalian cell culture medium, and uses thereof)

IT Bronchi
Kidney
Trachea (anatomical)
(epithelium; **serum-free** mammalian cell culture medium, and uses thereof)

IT Skin
(keratinocyte; **serum-free** mammalian cell culture medium, and uses thereof)

IT Animal cell
(mammalian; **serum-free** mammalian cell culture medium, and uses thereof)

IT Eye
(retina, epithelium; **serum-free** mammalian cell culture medium, and uses thereof)

IT Animal
Animal tissue culture
Blood **serum**
Buffers
Culture media
Embryo, animal
Epithelium
Fibroblast
Kidney
Plant (Embryophyta)
Rice (Oryza sativa)
Soybean (Glycine max)
Virus
Yeast

(**serum-free** mammalian cell culture medium, and uses thereof)

IT Amino acids, biological studies
Carbohydrates, biological studies
Cytokines
Lipids, biological studies
Peptides, biological studies
Proteoglycans, biological studies
Salts, biological studies
Transferrins
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**serum-free** mammalian cell culture medium, and uses thereof)

IT Transferrins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(substitute; **serum-free** mammalian cell culture medium, and uses thereof)

IT 50-99-7, Glucose, biological studies **52-90-4, Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, Serine, biological studies 56-84-8, Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, Lysine, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamine, biological studies 60-18-4, Tyrosine, biological studies 60-33-3, Linoleic acid, biological studies 61-90-5, Leucine, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 65-23-6, Pyridoxine 67-48-1, **Choline chloride** 68-19-9, Vitamin b12 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, Arginine, biological studies 83-88-5, Riboflavin, biological studies 87-89-8, i-Inositol 98-92-0, Niacinamide 110-60-1, Putrescine 113-24-6, **Sodium** pyruvate 137-08-6, **Calcium pantothenate** 141-43-5, Ethanolamine, biological studies 143-74-8, Phenol red 144-55-8, Carbonic acid monosodium salt, biological studies 147-85-3, Proline, biological studies 7365-45-9, Hepes **7439-89-6D, Iron**, chelates, biological studies **7439-95-4D, Magnesium**, salts, biological studies 7439-96-5D, Manganese, salts, biological studies 7440-62-2D, Vanadium, salts, biological studies 7440-66-6, Zinc, biological studies 7440-66-6D, Zinc, salts, biological studies **7440-70-2D, Calcium**, salts, biological studies 7447-40-7, **Potassium chloride** (KCl), biological studies 7558-79-4 7647-14-5, **Sodium chloride**, biological studies 7782-49-2D, Selenium, salts, biological studies 9004-10-8, Insulin, biological studies 9004-10-8D, Insulin, substitute, biological studies 9005-49-6, Heparin, biological studies 9007-28-7, Chondroitin sulfate 9042-14-2, Dextran sulfate 9050-30-0, Heparan sulfate 10421-48-4 24967-94-0, Dermatan sulfate 57828-26-9, Lipoic acid 106392-12-5, Pluronic f68 140207-93-8, Pentosan sulfate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**serum-free** mammalian cell culture medium, and uses thereof)

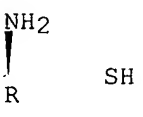
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bertheussen; US 5045454 A 1991 HCAPLUS
(2) Inlow; US 5024947 A 1991
(3) Maurer, H; Animal cell culture:a practical approach 1986, P13

(4) Mignot; US 5422250 A 1995 HCAPLUS
(5) Skelnik; US 4959319 A 1990
(6) Smithkline Beecham Corporation; WO 9205246 A1 1992 HCAPLUS
(7) Stockinger; US 5063157 A 1991 HCAPLUS
IT **52-90-4**, **Cysteine**, biological studies **7439-89-6D**
, **Iron**, chelates, biological studies **7439-95-4D**,
Magnesium, salts, biological studies **7440-70-2D**,
Calcium, salts, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(**serum-free** mammalian cell culture medium, and uses
thereof)
RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

L100 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN **1998:105996** HCAPLUS
DN **128:138343**
TI Chondrocyte **media** formulations and **culture** procedures
IN McPherson, John M.; Yaeger, Peter C.; Brown, Marie E.; Hanlon, James G.; Binette, Francois
PA Genzyme Corporation, USA; McPherson, John M.; Yaeger, Peter C.; Brown, Marie E.; Hanlon, James G.; Binette, Francois
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12N005-00
ICS C12N005-06
CC 9-11 (Biochemical Methods)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 9804681 A2 19980205 WO 1997-US13140 19970725
W: AU, CA, JP, US, US, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
CA 2261292 AA 19980205 CA 1997-2261292 19970725
AU 9737401 A1 19980220 AU 1997-37401 19970725
AU 730749 B2 20010315
EP 920490 A2 19990609 EP 1997-934312 19970725
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
JP 2000515023 T2 20001114 JP 1998-509024 19970725
US 6150163 A 20001121 US 1999-229430 19990113
PRAI US 1996-22801P P 19960725
US 1996-22810P P 19960725
US 1996-22711P P 19960726
WO 1997-US13140 W 19970725

AB One object of the present invention is based upon the development and use of a **serum-free** defined cell **culture** **medium** comprising a supplement mixt., a component mixt., a vitamin mixt., an inorg. salt mixt. and amino acid mixt. that avoids the problems inherent in the use of serum. In particular, the defined **medium** is useful in **culturing** fibroblasts, esp. chondrocytes. Another object of the present invention is to claim a method of enhancing the differentiation of chondrocytes and enhancing the synthesis of a cartilage specific matrix using tumor growth factor beta (TGF-.beta.). Another object of the present invention is to claim a method of enhancing the differentiation of chondrocytes using the combination of TGF-.beta. and IGF.

ST chondrocyte **media** formulation **culture**

IT Animal tissue **culture**
Blood serum
Cell differentiation
Chondrocyte
Fibroblast
(chondrocyte **media** formulations and **culture** procedures)

IT Amino acids, biological studies
Cartilage
Fibronectins
Salts, biological studies
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(chondrocyte **media** formulations and **culture** procedures)

IT Transforming growth factors
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.beta.-; chondrocyte **media** formulations and **culture** procedures)

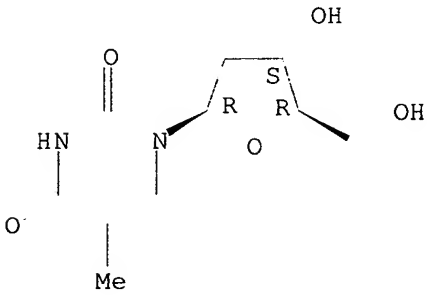
IT 50-23-7, Hydrocortisone **50-89-5**, Thymidine, biological studies 50-99-7, D-Glucose, biological studies 51-35-4, Hydroxyproline 54-12-6, Tryptophan 56-40-6, Glycine, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamine, biological studies 59-51-8, Methionine 60-33-3, Linoleic acid, biological studies 65-23-6, Pyridoxine 65-46-3, Cytidine 66-72-8, Pyridoxal 67-48-1 68-19-9, Vitamin b12 68-94-0, Hypoxanthine 70-18-8, Glutathione, biological studies 70-54-2, Lysine 80-68-2, Threonine 83-88-5, Riboflavin, biological studies 87-89-8, myo-Inositol 98-92-0, Niacinamide 110-60-1, Putrescine 113-24-6, **Sodium** pyruvate 137-08-6, **Calcium pantothenate** 144-55-8, Carbonic acid monosodium salt, biological studies 150-13-0 150-30-1, Phenylalanine 302-72-7, Alanine 302-84-1, Serine 328-39-2, Leucine 443-79-8, Isoleucine 516-06-3, Valine 556-03-6, Tyrosine

609-36-9, Proline 617-45-8, Aspartic acid 617-65-2, Glutamic acid
3130-87-8, Asparagine **3374-22-9, Cysteine** 4998-57-6,
Histidine 6899-04-3, Glutamine 7200-25-1, Arginine 7447-40-7,
Potassium chloride (KCl), biological studies
7487-88-9, Sulfuric acid **magnesium** salt (1:1), biological
studies 7558-79-4 7558-80-7 7647-14-5, **Sodium**
chloride, biological studies 7720-78-7 7733-02-0 7758-98-7,
Sulfuric acid copper(2+) salt (1:1), biological studies 7786-30-3,
Magnesium chloride ($MgCl_2$), biological studies
10043-52-4, **Calcium chloride** ($CaCl_2$), biological
studies 10124-37-5 10421-48-4 13463-67-7, Its, biological studies
57828-26-9, Lipoic acid 61912-98-9, IGF 62031-54-3, Fgf
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(chondrocyte **media** formulations and **culture**
procedures)

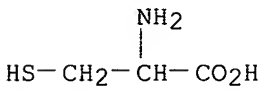
IT **50-89-5**, Thymidine, biological studies **3374-22-9**,
Cysteine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(chondrocyte **media** formulations and **culture**
procedures)

RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 3374-22-9 HCAPLUS
CN Cysteine (9CI) (CA INDEX NAME)



L100 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:31414 HCAPLUS
DN 128:72646
TI Biochemical analysis of antioxidant function
IN **Crawford, J. Fred**; Bucci, Luke
PA Research Development Foundation, USA
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q001-08
ICS C12N005-00; C12N005-02; C12N001-38
CC 9-11 (Biochemical Methods)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9748821	A1	19971224	WO 1997-US10328	19970618
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5985665	A	19991116	US 1996-665941	19960619
	ZA 9705359	A	19981218	ZA 1997-5359	19970101
	CA 2258803	AA	19971224	CA 1997-2258803	19970618
	AU 9733934	A1	19980107	AU 1997-33934	19970618
	AU 720703	B2	20000608		
	EP 925370	A1	19990630	EP 1997-930001	19970618
	EP 925370	B1	20021218		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	CN 1222940	A	19990714	CN 1997-195713	19970618
	NZ 333231	A	20000128	NZ 1997-333231	19970618
	JP 2000514287	T2	20001031	JP 1998-503167	19970618
	IL 127576	A1	20001206	IL 1997-127576	19970618
	AT 230030	E	20030115	AT 1997-930001	19970618
	KR 2000016773	A	20000325	KR 1998-710382	19981218
PRAI	US 1996-665941	A	19960619		
	WO 1997-US10328	W	19970618		

AB The present invention provides a cell culture medium useful for a biochem. anal. of antioxidant function in human lymphocytes, said medium comprising, a buffered, **serum-free** soln. contg. the following ingredients: a carbohydrate selected from the group consisting of glucose and a compd. biol. capable of producing glucose in the cells; a biol. usable form of **pantothenic acid**; **choline** or a biol. usable form of a substance capable of producing **choline** in the cells; inorg. ions comprising **chloride**, **phosphate**, **calcium**, **magnesium**, **potassium**, **sodium**; and **iron** in a biol. utilizable form, **cumene hydroperoxide**, deionized water, and a mitogen in an amt. effective to stimulate the lymphocytes being assayed; said buffered, **serum-free** soln. having a pH from about 6.8 to 7.6, said cell culture medium characterized by being effective to det. nutritional deficiencies, inadequacies, and imbalances and to biochem. analyze antioxidant function of the lymphocytes. Also provided is a method of biochem. analyzing cellular antioxidant function in an individual comprising the steps of: inoculating the cell culture medium of the present invention with lymphocytes from said individual; incubating the inoculated cell culture medium; and comparing the response of the lymphocytes with an av. response of lymphocytes from a control group of individuals.

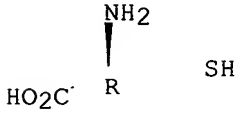
ST biochem analysis antioxidant function

IT Animal tissue culture
Antioxidants
Blood serum
Culture media
Ions
Lymphocyte
Mitogens
(biochem. anal. of antioxidant function)

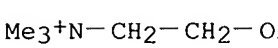
IT Buffers
Nutrition, animal
RL: ANT (Analyte); ANST (Analytical study)
(biochem. anal. of antioxidant function)

IT Amino acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(biochem. anal. of antioxidant function)
IT Carbohydrates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(biochem. anal. of antioxidant function)
IT Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(biochem. anal. of antioxidant function)
IT Analysis
(biochem.; biochem. anal. of antioxidant function)
IT 50-99-7, D-Glucose, biological studies **52-90-4**, L-**Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-45-1, L-Serine, biological studies 56-85-9, L-Glutamine, biological studies 56-87-1, L-Lysine, biological studies 58-05-9, Folinic acid 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 59-67-6, Nicotinic acid, biological studies 60-18-4, L-Tyrosine, biological studies 61-90-5, L-Leucine, biological studies **62-49-7**, **Choline** 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 68-19-9, Vitamin b12 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-24-5, Adenine, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies **79-83-4**, **Pantothenic acid** **80-15-9**, **Cumene hydroperoxide** 83-88-5, Riboflavin, biological studies 87-89-8, myo-Inositol 98-92-0, Nicotinamide 127-17-3, biological studies **7439-89-6**, **Iron**, biological studies **7439-95-4**, **Magnesium**, biological studies **7440-09-7**, **Potassium**, biological studies **7440-23-5**, **Sodium**, biological studies **7440-70-2**, **Calcium**, biological studies 7732-18-5, Water, biological studies 8059-24-3, Vitaminb6 **14265-44-2**, **Phosphate**, biological studies **16887-00-6**, **Chloride**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(biochem. anal. of antioxidant function)
IT **52-90-4**, L-**Cysteine**, biological studies **62-49-7**, **Choline** **79-83-4**, **Pantothenic acid** **80-15-9**, **Cumene hydroperoxide** **7439-89-6**, **Iron**, biological studies **7439-95-4**, **Magnesium**, biological studies **7440-09-7**, **Potassium**, biological studies **7440-23-5**, **Sodium**, biological studies **7440-70-2**, **Calcium**, biological studies **14265-44-2**, **Phosphate**, biological studies **16887-00-6**, **Chloride**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(biochem. anal. of antioxidant function)
RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

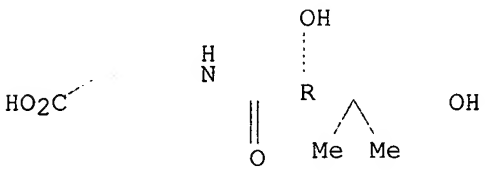


RN 62-49-7 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)

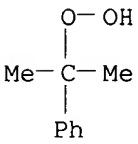


RN 79-83-4 HCAPLUS
CN .beta.-Alanine, N-[(2R)-2,4-dihydroxy-3,3-dimethyl-1-oxobutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 80-15-9 HCAPLUS
CN Hydroperoxide, 1-methyl-1-phenylethyl (9CI) (CA INDEX NAME)



RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7440-09-7 HCAPLUS
CN Potassium (8CI, 9CI) (CA INDEX NAME)

K

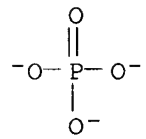
RN 7440-23-5 HCAPLUS
CN Sodium (8CI, 9CI) (CA INDEX NAME)

Na

RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

RN 14265-44-2 HCAPLUS
CN Phosphate (8CI, 9CI) (CA INDEX NAME)



RN 16887-00-6 HCAPLUS
CN Chloride (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Cl^-

L100 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN **1997:761704** HCAPLUS
DN **128:45595**
TI Method for **serum-free culture** of human vascular endothelial cells
IN Katsuen, Susumu; Ohshima, Kunihiro; Yamamoto, Ryohei; Nishino, Toyokazu
PA Kurashiki Boseki Kabushiki Kaisha, Japan
SO U.S., 11 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM C12N005-00
ICS C12N011-00; C12N011-02; C12N011-08
NCL 435402000
CC 9-11 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5691203	A	19971125	US 1993-128225	19930929
	JP 07008273	A2	19950113	JP 1993-141984	19930614
PRAI	JP 1993-141984		19930614		

AB Animal adhesive cells, particularly human vascular endothelial cells, are **cultured** in **serum-free** condition by coating at least one polymer having cell adhesive activity on an inner surface of a **culture** vessel or surface of a carrier for cell **culture**, and **culturing** the cells in the coated vessel or with the coated carrier using a **serum-free medium** for animal cell **culture** contg. isolated serum albumin, and preferably also transferrin. The polymer is a synthetic polymer modified with a peptide having cell adhesive activity or a natural polymer having cell adhesive activity or a combination thereof. Preferably, the peptide is RGDV, RGDS, RGDN, DGEA or YIGSR and the natural polymer is collagen, gelatin, keratin, fibronectin, vitronectin or laminin. A preferred **medium** for **culturing** human vascular endothelial cells is basal **medium** MCDB 131 or MCDB 107 contg. isolated serum albumin, transferrin, hydrocortisone and epithelial growth factor.
ST vascular endothelial cell **culture medium**; polymer peptide adhesive cell
IT Blood vessel

(endothelium; method for **serum-free culture** of human vascular endothelial cells)

IT Cell
Culture media
(method for **serum-free culture** of human vascular endothelial cells)

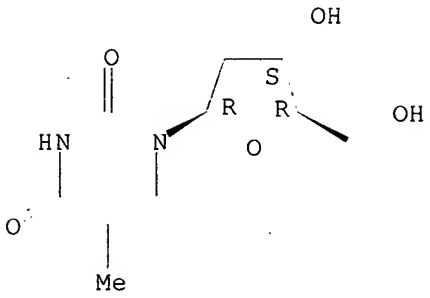
IT Albumins, biological studies
Polymers, biological studies
Transferrins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(method for **serum-free culture** of human vascular endothelial cells)

IT 50-23-7, Hydrocortisone **50-89-5**, Thymidine, biological studies 50-99-7, D-Glucose, biological studies **52-90-4**, **Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, Lysine, biological studies 58-05-9, Folinic acid 58-85-5, D-Biotin 59-43-8, Thiamine, biological studies 60-18-4, Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 65-23-6, Pyridoxine 67-48-1 68-19-9, Vitamin B12 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-24-5, Adenine, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, L-Arginine, biological studies **79-83-4**, D-**Pantothenic acid** 83-88-5, Riboflavin, biological studies 87-67-2, **Choline** bitartrate, biological studies 87-89-8, myo-Inositol 98-92-0, Nicotinamide 110-60-1, Putrescine 113-24-6, **Sodium** pyruvate 137-08-6 143-74-8, Phenol red 144-55-8, Carbonic acid monosodium salt, biological studies 147-85-3, Proline, biological studies 1200-22-2, .alpha.-Lipoic acid 1344-09-8 1492-18-8, **Calcium** folinate 7447-40-7, **Potassium chloride** (KCl), biological studies 7487-88-9, Sulfuric acid **magnesium** salt (1:1), biological studies 7558-79-4 7647-14-5, **Sodium chloride**, biological studies 7718-54-9, Nickel **chloride** (NiCl2), biological studies 7720-78-7, Sulfuric acid **iron**(2+) salt (1:1) 7733-02-0 7758-98-7, Sulfuric acid copper(2+) salt (1:1), biological studies 7772-99-8, Tin **chloride** (SnCl2), biological studies 7778-77-0 7785-87-7 7803-55-6 10043-52-4, **Calcium chloride** (CaCl2), biological studies 10102-18-8 12027-67-7 91037-65-9 93674-99-8 110590-64-2 129058-83-9 134580-64-6
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(method for **serum-free culture** of human vascular endothelial cells)

IT **50-89-5**, Thymidine, biological studies **52-90-4**, **Cysteine**, biological studies **79-83-4**, D-**Pantothenic acid**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(method for **serum-free culture** of human vascular endothelial cells)

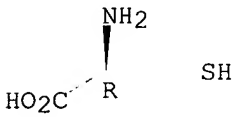
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



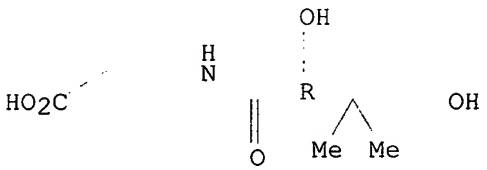
RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 79-83-4 HCAPLUS
CN .beta.-Alanine, N-[(2R)-2,4-dihydroxy-3,3-dimethyl-1-oxobutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L100 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:625591 HCAPLUS
DN 127:290229
TI Hematopoietic cell culture nutrient supplement
IN Daley, John P.; Dadey, Barbara M.; Biddle, William; Wysocki, Michelle G.
PA Life Technologies, Inc., USA
SO PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12N005-00
ICS A61K035-28
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 13
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9733978	A1	19970918	WO 1997-US1867	19970131

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
CA 2248142 AA 19970918 CA 1997-2248142 19970131
AU 9722600 A1 19971001 AU 1997-22600 19970131
EP 891419 A1 19990120 EP 1997-905789 19970131
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
JP 2000507812 T2 20000627 JP 1997-532595 19970131
US 2001033835 A1 20011025 US 1997-792299 19970131
PRAI US 1996-13149P P 19960312
WO 1997-US1867 W 19970131

AB The present invention provides a **serum-free** supplement which supports the growth of hematopoietic cells in culture. The supplement contains .gtoreq.1 ingredients selected from the group consisting of .gtoreq.1 antioxidant, .gtoreq.1 albumin or albumin substitute, .gtoreq.1 lipid agent, .gtoreq.1 insulin or insulin substitute, .gtoreq.1 transferrin or transferrin substitute, .gtoreq.1 trace element, and .gtoreq.1 glucocorticoid, wherein a basal cell culture medium supplemented with the supplement is capable of supporting the expansion of CD34+ hematopoietic cells and cells of myeloid lineage, in **serum-free** culture. The present invention also provides methods for culturing and for differentiating hematopoietic cells.

ST hematopoietic cell culture **serum free** supplement; myeloid cell culture **serum free** supplement

IT Bone marrow
(cells; hematopoietic cell culture nutrient supplement)

IT Hematopoietic precursor cell
(erythroid burst-forming; hematopoietic cell culture nutrient supplement)

IT Cytometry
(flow; hematopoietic cell culture nutrient supplement)

IT Animal tissue culture
Antioxidants
Blood serum
Cell proliferation
Hematopoiesis
Hematopoietic precursor cell
(hematopoietic cell culture nutrient supplement)

IT Acid-base indicators
Albumins, biological studies
Amino acids, biological studies
Ape
Buffers
Cat (Felis catus)
Cattle
Cell differentiation
Dog (Canis familiaris)
Glucocorticoids
Goat
Growth factors, animal
Guinea pig (Cavia porcellus)
Hamster
Horse (Equus caballus)
Interleukin 3
Lipids, biological studies
Mammal (Mammalia)
Monkey
Mouse
Nucleic acids
Rabbit
Rat
Salts, biological studies

Sheep
Stem cell factor
Swine
Trace elements, biological studies
Transferrins
Vitamins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hematopoietic cell culture nutrient supplement)

IT Hematopoietic precursor cell
(myeloid; hematopoietic cell culture nutrient supplement)

IT Albumins, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(serum; hematopoietic cell culture nutrient supplement)

IT 50-23-7, Hydrocortisone 50-99-7, D-Glucose, biological studies 51-35-4, L-Hydroxyproline **52-90-4**, L-**Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 60-18-4, L-Tyrosine, biological studies 60-24-2, 2-Mercaptoethanol 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 66-72-8, Pyridoxal 67-48-1, **Choline chloride** 68-19-9, Vitamin B12 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 83-88-5, Riboflavin, biological studies 87-89-8, i-Inositol 98-92-0, Niacinamide 113-24-6, **Sodium** pyruvate 127-17-3D, Pyruvic acid, salts 137-08-6, **Calcium** D-**pantothenate** 141-43-5, biological studies 143-74-8, Phenol red 144-55-8, Carbonic acid monosodium salt, biological studies 147-85-3, L-Proline, biological studies **616-91-1**, **N-Acetyl**-L-**cysteine** 3812-32-6, Carbonate, biological studies 3812-32-6D, Carbonate, salts, biological studies 7365-45-9, HEPES **7439-95-4**, **Magnesium**, biological studies **7439-95-4D**, **Magnesium**, salts, biological studies **7440-09-7**, **Potassium**, biological studies **7440-09-7D**, **Potassium**, salts, biological studies **7440-23-5**, **Sodium**, biological studies **7440-23-5D**, **Sodium**, salts, biological studies **7440-70-2**, **Calcium**, biological studies **7440-70-2D**, **Calcium**, salts, biological studies 7447-40-7, **Potassium chloride**, biological studies 7487-88-9, **Magnesium** sulfate, biological studies 7558-80-7, **Sodium** dihydrogen **phosphate** 7647-14-5, **Sodium chloride** (NaCl), biological studies 7757-79-1, **Potassium** nitrate, biological studies 7782-49-2, Selenium, biological studies 8049-62-5, Zinc insulin 9004-10-8, Insulin, biological studies 10043-52-4, **Calcium chloride** (CaCl2), biological studies 10102-18-8, **Sodium** selenite 11096-26-7, Erythropoietin **14265-44-2**, **Phosphate**, biological studies **14265-44-2D**, **Phosphate**, salts, biological studies 52225-20-4 83869-56-1, Granulocyte/macrophage colony-stimulating factor 143011-72-7, Granulocyte-colony-stimulating factor
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological

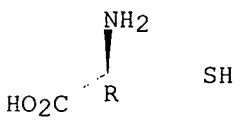
study); USES (Uses)
(hematopoietic cell culture nutrient supplement)

IT 197179-47-8, Human Ex-Cyte
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(human; hematopoietic cell culture nutrient supplement)

IT **52-90-4**, L-**Cysteine**, biological studies **616-91-1**, **N-Acetyl-L-cysteine** **7439-95-4**, **Magnesium**, biological studies **7439-95-4D**, **Magnesium**, salts, biological studies **7440-09-7**, **Potassium**, biological studies **7440-09-7D**, **Potassium**, salts, biological studies **7440-23-5**, **Sodium**, biological studies **7440-23-5D**, **Sodium**, salts, biological studies **7440-70-2**, **Calcium**, biological studies **7440-70-2D**, **Calcium**, salts, biological studies **14265-44-2**, **Phosphate**, biological studies **14265-44-2D**, **Phosphate**, salts, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hematopoietic cell culture nutrient supplement)

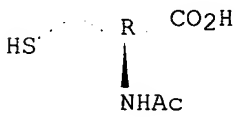
RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 616-91-1 HCAPLUS
CN L-Cysteine, N-acetyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7440-09-7 HCAPLUS
CN Potassium (8CI, 9CI) (CA INDEX NAME)

K

RN 7440-09-7 HCAPLUS
CN Potassium (8CI, 9CI) (CA INDEX NAME)

K

RN 7440-23-5 HCAPLUS
CN Sodium (8CI, 9CI) (CA INDEX NAME)

Na

RN 7440-23-5 HCAPLUS
CN Sodium (8CI, 9CI) (CA INDEX NAME)

Na

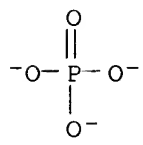
RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

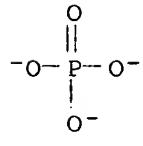
RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

RN 14265-44-2 HCAPLUS
CN Phosphate (8CI, 9CI) (CA INDEX NAME)



RN 14265-44-2 HCAPLUS
CN Phosphate (8CI, 9CI) (CA INDEX NAME)



L100 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:483452 HCAPLUS

DN 127:92426
TI **Serum-free** culture medium for Drosophila insect cells
IN Ramos, Luciano; Murnane, Amy Anne; Oka, Melvin Susumu
PA SmithKline Beecham Corp., USA
SO U.S., 5 pp., Cont. of U.S. Ser. No. 183,585, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM C12N005-00
NCL 435404000
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 12
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5641678	A	19970624	US 1995-483634	19950607
PRAI	US 1994-183585		19940118		

AB The **serum-free** medium of the invention comprises a basal medium to which is added yeast hydrolyzate and albumin or dextran. In another embodiment of the invention, albumin hydrolyzate is added to the basal medium, in addn. to the aforementioned compds.
ST Drosophila cell culture **serum free** medium; insect cell culture **serum free** media
IT Protein hydrolyzates
Protein hydrolyzates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(albumin hydrolyzates; **serum-free** culture medium for Drosophila insect cells)
IT Envelope proteins
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(gp120env; **serum-free** culture medium for Drosophila insect cells)
IT Yeast
(hydrolyzate; **serum-free** culture medium for Drosophila insect cells)
IT Albumins, biological studies
Albumins, biological studies
Lactalbumins
Lactalbumins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hydrolyzates; **serum-free** culture medium for Drosophila insect cells)
IT Protein hydrolyzates
Protein hydrolyzates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(lactalbumin hydrolyzates; **serum-free** culture medium for Drosophila insect cells)
IT Animal tissue culture
Culture media
Drosophila
Drosophila melanogaster
Insect (Insecta)
(**serum-free** culture medium for Drosophila insect cells)
IT Albumins, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**serum-free** culture medium for Drosophila insect cells)

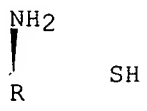
IT Albumins, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**serum; serum-free** culture medium for Drosophila insect cells)

IT 50-99-7, D-Glucose, biological studies **52-90-4**, L-**Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies 56-87-1, L-Lysine, biological studies 60-18-4, L-Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 67-48-1, **Choline chloride** 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 107-95-9, .beta.-Alanine 147-85-3, L-Proline, biological studies 298-14-6, **Potassium** bicarbonate 328-42-7, Oxaloacetic acid 1310-73-2, **Sodium** hydroxide, biological studies 6976-37-0, Bis-tris 7487-88-9, **Magnesium** sulfate, biological studies 7558-80-7, **Sodium** dihydrogen **phosphate** 9004-54-0, Dextran, biological studies 10043-52-4, **Calcium chloride** (CaCl2), biological studies 16177-21-2, **Sodium** glutamate 24595-14-0, **Potassium** glutamate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**serum-free** culture medium for Drosophila insect cells)

IT **52-90-4**, L-**Cysteine**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**serum-free** culture medium for Drosophila insect cells)

RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L100 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN **1997:454000** HCAPLUS
DN **127:62876**
TI Immortalized human skin cell lines and **serum-free medium** for their **culture**
IN Baur, Markus; Mace, Catherine; Malnoe, Armand; Pfeifer, Andrea M. A.; Regnier, Marcelle
PA Societe Des Produits Nestle S.A., Switz.
SO Eur. Pat. Appl., 27 pp.
CODEN: EPXXDW
DT Patent
LA French
IC ICM C12N005-08
ICS C12N005-00; C12N005-22
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 13, 14

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 780469	A1	19970625	EP 1996-203641	19961219
	EP 780469	B1	20010228		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	WO 9723602	A1	19970703	WO 1996-EP5812	19961219
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9713054	A1	19970717	AU 1997-13054	19961219
	AU 730222	B2	20010301		
	EP 877797	A1	19981118	EP 1996-944641	19961219
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	CN 1205737	A	19990120	CN 1996-199175	19961219
	BR 9612256	A	19990713	BR 1996-12256	19961219
	JP 2000506374	T2	20000530	JP 1997-523329	19961219
	AT 199390	E	20010315	AT 1996-203641	19961219
	ES 2155166	T3	20010501	ES 1996-203641	19961219
	NO 9802810	A	19980821	NO 1998-2810	19980618
	US 2002012993	A1	20020131	US 1998-91483	19980619
	US 6423540	B2	20020723		
	US 2002042129	A1	20020411	US 2001-982649	20011018
PRAI	US 1995-576483	A	19951221		
	WO 1996-EP5812	W	19961219		
	WO 1996-EP5818	W	19961219		
	US 1998-91483	A1	19980619		

AB The invention concerns immortalized cell lines, esp. of keratinocytes and melanocytes derived from normal human skin, as well as a novel **serum-free medium** for the isolation, growth, and maintenance of these cells. Procedures and compns. are disclosed for producing primary melanocytes and keratinocytes in the absence of serum and without fibroblast nurse cells. Plasmids derived from SV40 virus or papilloma virus 16 were used to immortalize the melanocytes and keratinocytes of this invention. The findings are useful for the improved immunol., pharmacol., photo-, and chemotoxicol. anal. of cutaneous reactions and for the expression of heterologous genes. The cells may be used for studying the inflammation reaction and for skin grafting.

ST immortalized keratinocyte melanocyte cell **culture medium** ; skin graft immortalized keratinocyte melanocyte; inflammation analysis immortalized keratinocyte melanocyte

IT Animal cell line
(DK2-NR; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Animal cell line
(DK3-NR; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Animal cell line
(DM2-NR; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Animal cell line
(FK2-NR; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Reagents
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(MCDB 153; immortalized human skin cell lines **culture** in

serum-free medium)
IT Reagents
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(NR-2; immortalized human skin cell lines **culture** in **serum-free medium**)
IT Reagents
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(NR-3; immortalized human skin cell lines **culture** in **serum-free medium**)
IT Reagents
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(NR-4; immortalized human skin cell lines **culture** in **serum-free medium**)
IT Fatty acids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(essential; immortalized human skin cell lines **culture** in **serum-free medium**)
IT Gene
(expression; immortalized human skin cell lines **culture** in **serum-free medium**)
IT Transformation, neoplastic
(immortalization; immortalized human skin cell lines **culture** in **serum-free medium**)
IT Animal tissue **culture**
Human papillomavirus 16
Inflammation
Melanocyte
Physiological saline solutions
Plasmids
Simian virus 40
Skin
(immortalized human skin cell lines **culture** in **serum-free medium**)
IT Amino acids, biological studies
Antibiotics
Pituitary hormones
Salts, biological studies
Transferrins
Vitamins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(immortalized human skin cell lines **culture** in **serum-free medium**)
IT Filaggrin
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(immortalized human skin cell lines **culture** in **serum-free medium**)
IT Keratins
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(immortalized human skin cell lines **culture** in **serum-free medium**)
IT Melanins
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation,

nonpreparative); OCCU (Occurrence)
(immortalized human skin cell lines **culture** in **serum -free medium**)

IT Proteins, general, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(immortalized human skin cell lines **culture** in **serum -free medium**)

IT Tumor necrosis factors
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(immortalized human skin cell lines **culture** in **serum -free medium**)

IT Fibronectins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(immortalized human skin cell lines **culture** in **serum -free medium**)

IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(involucrins; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Skin
(keratinocyte; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(loricrins; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Amino acids, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(salts; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Transplant and Transplantation
(skin; immortalized human skin cell lines **culture** in **serum-free medium**)

IT Skin
(transplant; immortalized human skin cell lines **culture** in **serum-free medium**)

IT 50-23-7, Hydrocortisone **50-89-5**, Thymidine, biological studies 50-99-7, D-Glucose, biological studies 51-43-4, Epinephrine **52-90-4**, L-**Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 57-92-1, Streptomycin, biological studies 58-85-5 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 60-18-4, L-Tyrosine, biological studies 61-33-6, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-23-6, Pyridoxine 67-48-1, **Choline chloride** 68-19-9, Cyanocobalamin 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan,

biological studies 73-24-5, Adenine, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 83-88-5, Riboflavin, biological studies 87-89-8, i-Inositol 98-92-0, Nicotinamide 110-60-1, Putrescine 113-24-6, **Sodium** pyruvate 127-09-3, **Sodium** acetate 137-08-6, **Calcium** **pantothenate** 141-43-5, biological studies 143-74-8, Phenol red 144-55-8, Carbonic acid monosodium salt, biological studies 147-85-3, L-Proline, biological studies 1071-23-4, Phosphoethanolamine 1077-28-7, Thioctic acid 1397-89-3, Fungizone 6834-92-0 7365-45-9, HEPES **7440-70-2**, **Calcium**, biological studies 7447-40-7, **Potassium chloride**, biological studies 7558-79-4, Disodium **phosphate** 7647-14-5, **Sodium** **chloride** (NaCl), biological studies 7733-02-0, Zinc sulfate 7758-98-7, Cupric sulfate, biological studies 7772-99-8, Tin **chloride**, biological studies 7773-01-5, Manganese **chloride** 7786-30-3, **Magnesium chloride**, biological studies 7786-81-4, Nickel sulfate 7803-55-6, Ammonium metavanadate 9004-10-8, Insulin, biological studies 10028-22-5, Ferric sulfate 10043-52-4, **Calcium chloride** (CaCl2), biological studies 10102-18-8, **Sodium** selenite 12027-67-7, Ammonium molybdate 16561-29-8, Phorbol 12-myristate 13-acetate 62229-50-9, Epidermal growth factor 106096-93-9, Basic fibroblast growth factor
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(immortalized human skin cell lines **culture** in **serum** **-free medium**)

IT 50812-37-8, Glutathione S-transferase
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(immortalized human skin cell lines **culture** in **serum** **-free medium**)

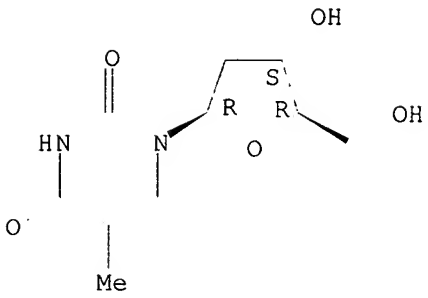
IT 9035-51-2, Cytochrome P 450, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(multiple forms; immortalized human skin cell lines **culture** in **serum-free medium**)

IT 9001-12-1, Collagenase
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
(type I; immortalized human skin cell lines **culture** in **serum-free medium**)

IT **50-89-5**, Thymidine, biological studies **52-90-4**, L-**Cysteine**, biological studies **7440-70-2**, **Calcium** , biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(immortalized human skin cell lines **culture** in **serum** **-free medium**)

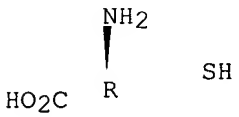
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

L100 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN **1997:16735** HCAPLUS
DN **126:141671**
TI Development of a chemically defined **medium** for the growth of Leuconostoc mesenteroides
AU Foucaud, Catherine; Francois, Alan; Richard, Jean
CS Unite de Recherches Laitieres, Institut National de la Recherche Agronomique, Jouy en Josas, 78350, Fr.
SO Applied and Environmental Microbiology (1997), 63(1), 301-304
CODEN: AEMIDF; ISSN: 0099-2240
PB American Society for Microbiology
DT Journal
LA English
CC 9-11 (Biochemical Methods)
AB A chem. defined **medium** for the growth of Leuconostoc mesenteroides was developed. This **medium** contained lactose, Mn2+, Mg2+, 12 amino acids, eight vitamins, adenine, uracil, and Tween 80. We showed the beneficial effect of aerobic conditions on growth and that **potassium phosphate** (135 mM) is a suitable buffer. The growth rate in this **medium** was 0.85 .+-. 0.10 h-1 for the six strains examd., and cell densities up to 3.5 .times. 109 CFU/mL were attained.
ST Leuconostoc growth chem defined **medium**
IT **Culture media**
Leuconostoc mesenteroides
(development of a chem. defined **medium** for the growth of Leuconostoc mesenteroides)
IT Amino acids, biological studies
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

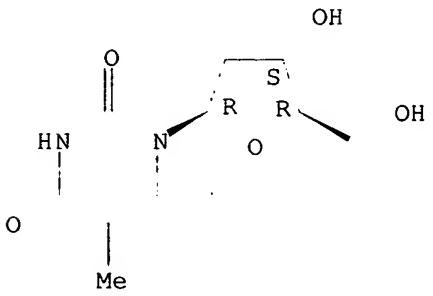
(Uses)
(development of a chem. defined **medium** for the growth of Leuconostoc mesenteroides)

IT **50-89-5**, Thymidine, biological studies **52-90-4**, L-**Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies 56-87-1, L-Lysine, biological studies 58-63-9, Inosine 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-67-6, Nicotinic acid, biological studies 60-18-4, L-Tyrosine, biological studies 61-90-5, Leu, biological studies 63-42-3, Lactose 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-22-5 65-86-1, Orotic acid 66-22-8, Uracil, biological studies 67-03-8, Thiamine dichloride 68-19-9, Vitamin B12 69-89-6, Xanthine 70-47-3, Asn, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-24-5, Adenine, biological studies 73-32-5, L-Isoleucine, biological studies 73-40-5, Guanine 74-79-3, L-Arginine, biological studies 83-88-5, Riboflavin, biological studies 127-09-3, **Sodium** acetate 137-08-6, **Calcium pantothenate** 147-85-3, L-Proline, biological studies 524-36-7 555-06-6, **Sodium** p-aminobenzoate 1077-28-7, DL-6,8-Thioctic acid 3458-72-8 7646-79-9, Cobalt **chloride** (CoCl2), biological studies 7733-02-0 7758-11-4 7758-98-7, Sulfuric acid copper(2+) salt (1:1), biological studies 7778-77-0 7785-87-7 7786-30-3, **Magnesium chloride** (MgCl2), biological studies 9005-65-6, Tween 80. 10043-52-4, **Calcium chloride** (CaCl2), biological studies 12040-57-2, **Iron chloride** 16397-91-4, Mn2+, biological studies **22537-22-0**, Mg2+, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(development of a chem. defined **medium** for the growth of Leuconostoc mesenteroides)

IT **50-89-5**, Thymidine, biological studies **52-90-4**, L-**Cysteine**, biological studies **22537-22-0**, Mg2+, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(development of a chem. defined **medium** for the growth of Leuconostoc mesenteroides)

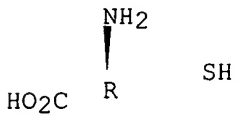
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 22537-22-0 HCAPLUS
CN Magnesium, ion (Mg2+) (8CI, 9CI) (CA INDEX NAME)

L100 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN 1994:72906 HCAPLUS
DN 120:72906
TI **Serum-free** culture medium for eukaryotic cells
IN Bosslet, Klaus
PA Behringwerke AG, Germany
SO Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C12N005-00
CC 9-11 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 573812	A2	19931215	EP 1993-107948	19930515
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	DE 4219250	A1	19931216	DE 1992-4219250	19920612
	CA 2098255	AA	19931213	CA 1993-2098255	19930611
	AU 9340183	A1	19931216	AU 1993-40183	19930611
	JP 06078759	A2	19940322	JP 1993-140227	19930611
PRAI	DE 1992-4219250		19920612		

AB A culture medium is described which contains amino acids, vitamins, cofactors, inorg. salts, ethanolamine, Na2SeO3, human transferrin, and human insulin, and is otherwise free of animal proteins. This medium supports the growth of a variety of eukaryotic cells (e.g. human and rat tumor cells) as well as media contg. fetal calf serum, and is much less expensive.
ST ethanolamine culture medium animal cell; selenite culture medium animal cell; transferrin culture medium animal cell; insulin culture medium animal cell
IT Amino acids, biological studies
Coenzymes
Salts, biological studies
Vitamins
RL: BIOL (Biological study)
(culture medium for animal cells contg.)
IT Transferrins
RL: BIOL (Biological study)
(culture medium for animal cells contg. human)
IT Animal tissue culture
(ethanolamine and insulin and selenite and transferrin in growth medium for)
IT 50-99-7, Glucose, biological studies **52-90-4, Cysteine**
, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-84-8, Aspartic acid, biological studies 56-85-9, Glutamine,

biological studies 56-86-0, Glutamic acid, biological studies 59-30-3, Folic acid, biological studies 60-18-4, Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 65-22-5, Pyridoxal hydrochloride 67-03-8, Thiamine hydrochloride 67-48-1, **Choline chloride** 70-47-3, Asparagine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 83-88-5, Riboflavin, biological studies 87-89-8, Inositol 98-92-0, Nicotinamide 113-24-6, **Sodium** pyruvate 137-08-6, **Calcium pantothenate** 141-43-5, biological studies 143-74-8, Phenol red 144-55-8, **Sodium** bicarbonate, biological studies 147-85-3, Proline, biological studies 645-35-2, Histidine hydrochloride 657-27-2, Lysine hydrochloride 1119-34-2, Arginine hydrochloride 7447-40-7, **Potassium chloride** (KCl), biological studies 7487-88-9, **Magnesium** sulfate, biological studies 7558-80-7, **Sodium** dihydrogen **phosphate** 7647-14-5, **Sodium chloride**, biological studies 10043-52-4, **Calcium chloride**, biological studies 10102-18-8, **Sodium** selenite 10421-48-4, Ferric nitrate
RL: BIOL (Biological study)
(culture medium for animal cells contg.)

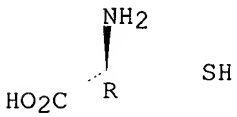
IT 9004-10-8, Insulin, biological studies
RL: BIOL (Biological study)
(culture medium for animal cells contg. human)

IT **52-90-4, Cysteine**, biological studies
RL: BIOL (Biological study)
(culture medium for animal cells contg.)

RN 52-90-4 HCAPLUS

CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L100 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2003 ACS

AN 1990:32876 HCAPLUS

DN 112:32876

TI Improved maintenance of adult rat hepatocytes in a new **serum-free** medium in the presence or absence of barbiturates

AU Miyazaki, Masahiro; Suzuki, Yasunori; Oda, Munehiro; Kawai, Akira; Bai, Liyan; Sato, Jiro

CS Med. Sch., Okayama Univ., Okayama, 700, Japan

SO In Vitro Cellular & Developmental Biology (1989), 25(9), 839-48
CODEN: ICDBEO; ISSN: 0883-8364

DT Journal

LA English

CC 9-11 (Biochemical Methods)
Section cross-reference(s): 1, 13

AB For **serum-free** primary culture of adult rat hepatocytes, a synthetic medium DM-160 and rat-tail collagen were selected for the basal medium and for the culture substratum, resp. Barbiturates, such as phenobarbital and 1-ethyl-5-isobutylbarbiturate, efficiently supported survival of hepatocytes and maintained their morphol. features at lower concns. under the **serum-free** conditions than under the serum-supplemented conditions. However, the hepatocyte survival rates under the **serum-free** conditions were lower than those under the serum-supplemented conditions in the presence or absence

of barbiturates. Supplementation of the basal medium with a combination of 5 groups of factors (5Fs), such as 8 amino acids (Ala, Arg, Gly, Ile, Met, Phe, Pro, and Trp), 2 unsatd. fatty acids (linoleate and oleate), protease inhibitor (aprotinin), 3 vitamins (A, C, and E), and 5 trace elements (Mn, **Fe**, Cu, Zn, and Se), improved hepatocyte survival under the **serum-free** conditions in the presence or absence of barbiturates. In other words, the serum could be completely substituted by the 5Fs. Hepatocyte cultures maintained in the 5Fs-supplemented basal medium showed excellent induction of tyrosine aminotransferase activity in response to dexamethasone in the presence or absence of barbiturates. The efficiency of the 5Fs-supplemented basal medium for maintaining hepatocytes was not inferior to those of other media in common use with hepatocytes, such as Williams' medium E and Waymouth's medium MB-752/1. In conclusion, maintenance of functional hepatocytes in **serum-free** primary culture could be improved by use of the new medium prepn. (the 5Fs-supplemented DM-160) in the presence of barbiturates.

ST hepatocyte culture **serum free** media barbiturate

IT Animal tissue culture
(of hepatocytes, **serum-free** medium for, in barbiturates absence and presence)

IT Amino acids, biological studies
Trace elements, biological studies
Vitamins
RL: BIOL (Biological study)
(**serum-free** medium contg., for hepatocyte culture, barbiturates in relation to)

IT Liver
(hepatocyte, culture of, **serum-free** medium for, in barbiturates absence and presence)

IT 67-52-7D, 2,4,6(1H,3H,5H)-Pyrimidinetrione, derivs. 109791-24-4
50-06-6, Phenobarbital, biological studies
RL: ANST (Analytical study)
(hepatocyte culture on **serum-free** medium in presence of)

IT 9014-55-5, Tyrosine aminotransferase
RL: ANST (Analytical study)
(of hepatocyte in culture with **serum-free** medium, dexamethasone induction of)

IT 68-19-9, Cyanocobalamine 68-26-8, Vitamin A 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, L-Arginine, biological studies **79-83-4** 83-88-5, Riboflavine, biological studies 87-89-8, Inositol 98-92-0, Nicotinamide 112-80-1, Oleic acid, biological studies 143-74-8, Phenol red 144-55-8, Carbonic acid monosodium salt, biological studies 147-85-3, Proline, biological studies 1406-18-4, Vitamin E **7439-89-6**, **Iron**, biological studies 7439-96-5, Manganese, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7447-40-7, **Potassium chloride** (KCl), biological studies 7487-88-9, Sulfuric acid **magnesium** salt (1:1), biological studies 7558-80-7 7647-14-5, **Sodium chloride** (NaCl), biological studies 7782-49-2, Selenium, biological studies 9087-70-1, Aprotinin 10043-52-4, **Calcium chloride** (CaCl2), biological studies 50-81-7, Vitamin C, biological studies 50-99-7, Glucose, biological studies **52-90-4**, L-**Cysteine**, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies

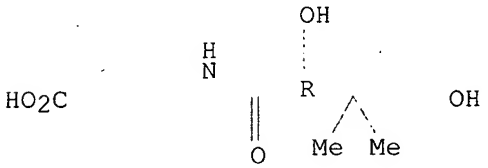
59-43-8, Thiamine, biological studies 60-18-4, L-Tyrosine, biological studies 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies 61-90-5, L-Leucine, biological studies **62-49-7** 63-68-3, Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-23-6, Pyridoxine
RL: ANST (Analytical study)
(**serum-free** medium contg., for hepatocyte culture, barbiturates in relation to)

IT 50-02-2, Dexamethasone
RL: ANST (Analytical study)
(tyrosine aminotransferase of hepatocytes in culture in **serum -free** medium induction by)

IT **79-83-4 7439-89-6, Iron**, biological studies
52-90-4, L-Cysteine, biological studies **62-49-7**
RL: ANST (Analytical study)
(**serum-free** medium contg., for hepatocyte culture, barbiturates in relation to)

RN 79-83-4 HCAPLUS
CN .beta.-Alanine, N-[(2R)-2,4-dihydroxy-3,3-dimethyl-1-oxobutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

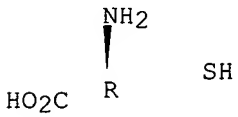


RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 52-90-4 HCAPLUS
CN L-Cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 62-49-7 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)

$Me_3^+N-CH_2-CH_2-OH$

L100 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2003 ACS
AN 1989:532627 HCAPLUS
DN 111:132627
TI Culture medium composition for animal cell culture
PA Grace, W. R., and Co., USA
SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C12N005-00
ICA C12P021-00
CC 16-6 (Fermentation and Bioindustrial Chemistry)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63267269	A2	19881104	JP 1988-67456	19880323
	EP 283942	B1	19920520	EP 1988-104294	19880318
	R: DE, FR, GB, IT				
PRAI	US 1987-29577		19870324		

AB Basal nutrient medium suitable for **serum-free**/-low tissue culture, e.g. hybridoma culture for manufg. monoclonal antibodies (MAb), is disclosed. MAb-producing CRL 1606 hybridoma cells were cultured in a **serum-free** medium reconstructed from the dried medium formulation (mosm 295) for up to 144 h. Cellular growth of and MAb prodn. by the cells in the medium thus prepd. were more efficient than the control group where the cells were cultured in DME medium supplemented with 10% fetal calf serum. For example, the cell no. and MAb prodn. at 120 h was 2300.times.109/L and 262.9 **mg**/L, resp., compared to 2000.times.109 and 149.6 for the control.

ST animal tissue culture medium compn; **serum free** medium monoclonal antibody manuf

IT Mammal
(cells of, cultivation of, **serum-free**/-low culture medium for)

IT Carbohydrates and Sugars, biological studies
Coenzymes
Nucleic acids
Vitamins
RL: BIOL (Biological study)
(culture medium contg., **serum-free**/-low, for animal tissue culture)

IT Amino acids, biological studies
Lipids, biological studies
Trace elements, biological studies
RL: BIOL (Biological study)
(culture medium contg., **serum-free**/low, for animal tissue culture)

IT Blood serum
Proteins, biological studies
RL: BIOL (Biological study)
(culture medium low in, for animal tissue culture)

IT Albumins, biological studies
RL: BIOL (Biological study)
(culture medium supplemented with, **serum-free**/low)

IT Transferrins
RL: BIOL (Biological study)
(**iron**-satd., culture medium supplemented with, **serum -free**/-low)

IT Animal tissue culture
(medium formulation for, **serum-free**/-low)

IT pH
(of **serum-free**/-low culture medium, for animal tissue culture)

IT Amino acids, biological studies
RL: BIOL (Biological study)
(essential, culture medium contg., **serum-free**/low, for animal tissue culture)

IT Antibodies
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP

(Preparation)
(monoclonal, manuf. of, **serum-free**/-low culture medium in relation to)
IT 9004-10-8, Insulin, biological studies
RL: BIOL (Biological study)
(culture medium supplemented with, **serum-free**/low)
IT 50-99-7, D-Glucose, biological studies 51-35-4, L-Hydroxy proline 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies 58-56-0, Pyridoxine hydrochloride 58-85-5, Biotin 59-30-3, Folic acid, biological studies 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-22-5, Pyridoxal hydrochloride 67-03-8, Thiamine hydrochloride 67-48-1, **Choline chloride** 68-19-9, Vitamin B12 70-18-8, Glutathione, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophane, biological studies 73-24-5, Adenine, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 83-88-5, Riboflavin, biological studies 87-89-8, i-Inositol 98-92-0, 3-Pyridinecarboxamide 113-24-6 137-08-6 144-55-8, **Sodium** bicarbonate, biological studies 147-85-3, L-Proline, biological studies 333-93-7 657-27-2, L-Lysine hydrochloride 1200-22-2, Lipoic acid 1310-73-2, **Sodium** hydroxide, biological studies 1321-11-5, Aminobenzoic acid 2002-24-6, Ethanolamine hydrochloride 5794-13-8, L-Asparagine monohydrate 5934-29-2, L-Histidine hydrochloride monohydrate 6035-45-6 7048-04-6, L-**Cysteine** hydrochloride, monohydrate 7365-45-9, HEPES 7446-20-0, Zinc sulfate (heptahydrate) 7447-40-7, **Potassium chloride**, biological studies 7647-14-5, **Sodium chloride**, biological studies 7758-99-8 7782-61-8 7782-63-0 7782-85-6 7803-55-6 10034-99-8 10035-04-8 10101-97-0 12054-85-2 13472-35-0 13517-24-3 26970-82-1 45738-97-4 122666-87-9 122666-88-0, Thymidine hydrochloride
RL: BIOL (Biological study)
(medium formulation contg., for **serum**-low/-**free** mammalian cell culture)
IT 12408-02-5
RL: BIOL (Biological study)
(pH, of **serum-free**/-low culture medium, for animal tissue culture)

=> fil wpix
FILE 'WPIX' ENTERED AT 17:33:14 ON 26 APR 2003
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FILE LAST UPDATED: 16 APR 2003 <20030416/UP>
MOST RECENT DERWENT UPDATE: 200325 <200325/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

Due to data production problems the WPI file had to be reset to update 200324.
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The previous SDI run for 24 has been credited.
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/BIX is also provided which comprises both /BI and /ABEX <<<

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=> d all abeq tech abex tot

L127 ANSWER 1 OF 2 WPIX (C) 2003 THOMSON DERWENT
AN 1998-239725 [21] WPIX
DNC C1998-074761
TI New **culture medium** - includes, e.g.
L-buthionine-(S,R)-sulphoximine, is useful in assessment of intracellular **cysteine** and glutathione concentrations.
DC B04 D16
IN CRAWFORD, J F
PA (RERE-N) RES DEV FOUND
CYC 78
PI WO 9810092 A1 19980312 (199821)* EN 36p C12Q001-02 <--
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ZA 9707892 A 19990428 (199922) 35p A61K000-00
EP 931163 A1 19990728 (199934) EN C12Q001-02 <--
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CN 1268977 A 20001004 (200067) C12Q001-02 <--
JP 2001500011 W 20010109 (200107) 33p C12Q001-02 <--
KR 2000068398 A 20001125 (200130) C12Q001-02 <--
US 2002068270 A1 20020606 (200241) C12Q001-00 <--
IL 128650 A 20021201 (200282) C12N005-00 <--
ADT WO 9810092 A1 WO 1997-US15451 19970903; AU 9742464 A AU 1997-42464 19970903; ZA 9707892 A ZA 1997-7892 19970903; EP 931163 A1 EP 1997-940761 19970903, WO 1997-US15451 19970903; AU 718816 B AU 1997-42464 19970903; NZ 334327 A NZ 1997-334327 19970903, WO 1997-US15451 19970903; CN 1268977 A CN 1997-197585 19970903; JP 2001500011 W WO 1997-US15451 19970903, JP 1998-512821 19970903; KR 2000068398 A WO 1997-US15451 19970903, KR 1999-701715 19990302; US 2002068270 A1 Provisional US 1996-25373P 19960903, Div ex US 1997-922279 19970903, US 2001-17625 20011213; IL 128650 A IL 1997-128650 19970903
FDT AU 9742464 A Based on WO 9810092; EP 931163 A1 Based on WO 9810092; AU 718816 B Previous Publ. AU 9742464, Based on WO 9810092; NZ 334327 A Based on WO 9810092; JP 2001500011 W Based on WO 9810092; KR 2000068398 A Based on WO 9810092; IL 128650 A Based on WO 9810092
PRAI US 1996-25373P 19960903; US 1997-922279 19970903; US 2001-17625 20011213
IC ICM A61K000-00; **C12N005-00**; **C12Q001-00**; **C12Q001-02**
ICS **C12N005-02**; **C12N005-06**
AB WO 9810092 A UPAB: 19980528

A cell culture medium, which is useful for (i) determining levels of intracellular function of glutathione in lymphocytes and (ii) performing biochemical analysis of the antioxidant function of the lymphocytes, comprising a buffered, serum-free medium (pH 6.8-7.6) comprising: (a) a carbohydrate (which is glucose or a compound capable of producing this in the lymphocytes); (b) a biologically usable form of **pantothenic acid**, **choline** or a biologically usable form of a substance capable of producing **choline** in the lymphocytes; (c) inorganic ions comprising chloride, phosphate, calcium, magnesium, potassium, sodium and iron in a biologically utilisable form; (d) L-buthionine-(S,R)-sulphoximine (I); (e) deionised water, and (f) a mitogen in an amount effective to stimulate the lymphocytes. Also claimed is a cell culture medium, which is useful for (i) determining levels of intracellular function of **cysteine** and (ii) performing biochemical analysis of the antioxidant function of human lymphocytes, having identical composition to the medium above, but instead of (I) containing **cumene hydroperoxide**.

The media comprises a 5-500 mu M concentration of (I) or a 50-500 mu M concentration of (II). The media may be supplemented with amino acids and/or vitamins. The amino acids are selected from L-arginine, L-**cysteine**, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-serine, L-threonine, L-tryptophan, L-tyrosine and L-valine. The vitamins are selected from biotin, folinic acid, nicotinamide, nicotinic acid, riboflavin, thiamine, vitamin B6 and vitamin B12. Processes in which the media are used typically comprise: (a) inoculating the medium with lymphocytes from an individual; (b) incubating the inoculated medium, and (c) comparing the response of the lymphocytes with an average response of lymphocytes from a control group of individuals.

USE - The media may be used in processes for measuring levels of intracellular function of **cysteine** and glutathione, so as to provide a measurement of an individual's ability to prevent degenerative disease and deal with oxidative stress, and to allow therapeutic measures to be taken to improve an individual's antioxidant profile. It is widely accepted that certain conditions (e.g. ageing, arthritis, cancer, atherosclerosis, myocardial infarction, stroke, viral infection, pulmonary conditions, bowel diseases and neurodegenerative disease) can develop due to the presence of reactive oxygen molecules.

Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: B04-F04; B05-A01A; B05-A01B; B05-A03A; B05-C07; B07-A02B; B10-A08; B10-A22; B10-B02D; B10-C04E; B12-K04; D05-H01; D05-H09

L127 ANSWER 2 OF 2 WPIX (C) 2003 THOMSON DERWENT
AN 1998-063159 [06] WPIX
DNC C1998-022167
TI Cell **culture medium** for analysing antioxidant function in human lymphocytes - comprises buffered solution comprising nutrients, **cumene hydroperoxide** and mitogen, useful in, e.g. assessing intracellular deficiencies of vitamin(s).
DC B04 D16
IN BUCCI, L; CRAWFORD, J F; CRAWFORD, F
PA (RERE-N) RES DEV FOUND
CYC 75
PI WO 9748821 A1 19971224 (199806)* EN 32p C12Q001-08 <--
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
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AU 9733934 A 19980107 (199820) C12Q001-08 <--
ZA 9705359 A 19990224 (199913) 32p A61K000-00

EP 925370 A1 19990630 (199930) EN C12Q001-08 <--
R: AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE
CN 1222940 A 19990714 (199946) C12Q001-08 <--
US 5985665 A 19991116 (200001) C12N005-00 <--
NZ 333231 A 20000128 (200015) C12Q001-08 <--
AU 720703 B 20000608 (200035) C12Q001-08 <--
JP 2000514287 W 20001031 (200059) 31p C12N005-06 <--
IL 127576 A 20001206 (200103) C12N005-02 <--
KR 2000016773 A 20000325 (200104) C12Q001-08 <--
EP 925370 B1 20021218 (200301) EN C12Q001-08 <--
R: AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE
DE 69718017 E 20030130 (200317) C12Q001-08 <--

ADT WO 9748821 A1 WO 1997-US10328 19970618; AU 9733934 A AU 1997-33934 19970618; ZA 9705359 A ZA 1997-5359 19970618; EP 925370 A1 EP 1997-930001 19970618, WO 1997-US10328 19970618; CN 1222940 A CN 1997-195713 19970618; US 5985665 A US 1996-665941 19960619; NZ 333231 A NZ 1997-333231 19970618, WO 1997-US10328 19970618; AU 720703 B AU 1997-33934 19970618; JP 2000514287 W WO 1997-US10328 19970618, JP 1998-503167 19970618; IL 127576 A IL 1997-127576 19970618; KR 2000016773 A WO 1997-US10328 19970618, KR 1998-710382 19981218; EP 925370 B1 EP 1997-930001 19970618, WO 1997-US10328 19970618; DE 69718017 E DE 1997-618017 19970618, EP 1997-930001 19970618, WO 1997-US10328 19970618

FDT AU 9733934 A Based on WO 9748821; EP 925370 A1 Based on WO 9748821; NZ 333231 A Based on WO 9748821; AU 720703 B Previous Publ. AU 9733934, Based on WO 9748821; JP 2000514287 W Based on WO 9748821; KR 2000016773 A Based on WO 9748821; EP 925370 B1 Based on WO 9748821; DE 69718017 E Based on EP 925370, Based on WO 9748821

PRAI US 1996-665941 19960619

IC ICM A61K000-00; **C12N005-00; C12N005-02; C12N005-06; C12Q001-08**
ICS A01N001-02; C12N001-38; **C12Q001-02**; G01N001-00; G01N033-50

AB WO 9748821 A UPAB: 19980209

Cell culture medium (CCM) for biochemical analysis of antioxidant function in human lymphocytes comprises buffered, serum-free solution of pH 6.8-7.6 comprising: (a) glucose or its in vivo precursor; (b) an utilisable form of **pantothenic acid**; (c) **choline** or its in vivo precursor; (d) inorganic ions selected from chloride, phosphate, calcium, magnesium, potassium, sodium and iron; (e) **cumene hydroperoxide**; (f) deionised water, and (g) mitogen to stimulate the lymphocytes being analysed. Also claimed are: (1) a method of determining abnormal quantitative nutritional requirements for specific required nutrients in an individual comprising: (a) inoculating the CCM with lymphocytes from the individual, where the CCM comprises limiting concentrations of the nutrient being tested; (b) incubating the inoculated CCM, and (c) comparing the response of the lymphocytes with an average response of the lymphocytes with an average response of lymphocytes from the control group, and (2) a method of identifying nutritional factors or biochemical intermediates or their products and other blood components including drugs in an individual sensitive to such detrimental effects comprising: (a) (1)(a), but where the CCM comprises at least 1 of the above mentioned components; (b) (1)(b), and (c) (1)(c), but where the response is compared with that in the same medium with a source of the substance suspected to affect the detrimental effect of the nutrient, biochemical intermediate or its product or other blood component including the drug being tested.

USE - The methods and the CCM are used to biochemically analyse the cellular function of antioxidants (claimed). They also may be used to how well nutrient systems are working, to assess intracellular vitamin deficiencies that limit mitogenic responses, to determine abnormal nutrient requirements and to identify agents that can overcome the adverse action of blood components including drugs. Optimisation of vitamin and other nutrient levels in cells may, e.g. prevent heart diseases and some forms of cancer, stimulate the immune system, slow aging processes and

have a beneficial effect in disorders such as alcoholism, arthritis, diabetes, human immunodeficiency virus/acquired immune deficiency syndrome, macular degeneration and osteoporosis.

ADVANTAGE - The method may detect nutritional deficiencies before these become clinically manifested. Unlike known static methods, this process determines activity within cells. Lymphocytes are easy to collect and stimulate, they reflect long-term nutrient status and also possess metabolic pathways common to other cells and provide patient-specific information.

Dwg.0/1

FS CPI
FA AB; DCN
MC CPI: B03-D; B06-D09; B06-F03; B11-C08E; B12-K04A; B14-F01; B14-H01; D05-H01; D05-H08; D05-H09

=> fil dpci
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FILE LAST UPDATED: 25 APR 2003 <20030425/UP>
PATENTS CITATION INDEX, COVERS 1973 TO DATE

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=> d all l128

L128 ANSWER 1 OF 1 DPCI (C) 2003 THOMSON DERWENT
AN 1998-239725 [21] DPCI
DNC C1998-074761
TI New culture medium - includes, e.g. L-buthionine-(S,R)-sulphoximine, is useful in assessment of intracellular cysteine and glutathione concentrations.
DC B04 D16
IN CRAWFORD, J F
PA (RERE-N) RES DEV FOUND
CYC 78
PI WO 9810092 A1 19980312 (199821)* EN 36p C12Q001-02 <--
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
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AU 9742464 A 19980326 (199832) C12Q001-02
ZA 9707892 A 19990428 (199922) 35p A61K000-00
EP 931163 A1 19990728 (199934) EN C12Q001-02
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AU 718816 B 20000420 (200029) C12Q001-02
NZ 334327 A 20000623 (200038) C12Q001-02
CN 1268977 A 20001004 (200067) C12Q001-02
JP 2001500011 W 20010109 (200107) 33p C12Q001-02
KR 2000068398 A 20001125 (200130) C12Q001-02
US 2002068270 A1 20020606 (200241) C12Q001-00
IL 128650 A 20021201 (200282) C12N005-00
ADT WO 9810092 A1 WO 1997-US15451 19970903; AU 9742464 A AU 1997-42464 19970903; ZA 9707892 A ZA 1997-7892 19970903; EP 931163 A1 EP 1997-940761 19970903, WO 1997-US15451 19970903; AU 718816 B AU 1997-42464 19970903; NZ 334327 A NZ 1997-334327 19970903, WO 1997-US15451 19970903; CN 1268977 A CN 1997-197585 19970903; JP 2001500011 W WO 1997-US15451 19970903, JP 1998-512821 19970903; KR 2000068398 A WO 1997-US15451 19970903, KR 1999-701715 19990302; US 2002068270 A1 Provisional US 1996-25373P 19960903, Div ex US 1997-922279 19970903, US 2001-17625 20011213; IL 128650 A IL 1997-128650 19970903

FDT AU 9742464 A Based on WO 9810092; EP 931163 A1 Based on WO 9810092; AU 718816 B Previous Publ. AU 9742464, Based on WO 9810092; NZ 334327 A Based on WO 9810092; JP 2001500011 W Based on WO 9810092; KR 2000068398 A Based on WO 9810092; IL 128650 A Based on WO 9810092
PRAI US 1996-25373P 19960903; US 1997-922279 19970903; US 2001-17625 20011213
IC ICM A61K000-00; C12N005-00; C12Q001-00; C12Q001-02
ICS C12N005-02; C12N005-06
FS CPI

CTCS CITATION COUNTERS

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PNC.GI	0	Citing Patents Count (by inventor)
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CRC.X	0	Cited Literature References Count (by examiner)

CDP CITED PATENTS UPD: 19981009

Cited by Examiner

CITING PATENT	CAT	CITED PATENT	ACCNO
WO 9810092	A Y	US 4927762	A 1990-185660/24
	PA:	(CELL-N) CELL ENTERPRISES	
	IN:	DARFLER, F J	
	Y	US 5171885	A 1993-008659/01
	PA:	(CORR) CORNELL RES FOUND INC	
	IN:	GRIFFITH, O W	
	Y	US 5290571	A 1994-074311/09
	PA:	(IMMU-N) IMMUNOTEC RES CORP LTD	
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	Y	US 5405772	A 1995-052070/07
	PA:	(AMGE-N) AMGEN INC	
	IN:	PONTING, I L O	

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L129 ANSWER 1 OF 1 DPCI (C) 2003 THOMSON DERWENT
AN 1998-063159 [06] DPCI
DNC C1998-022167
TI Cell culture medium for analysing antioxidant function in human lymphocytes - comprises buffered solution comprising nutrients, cumene hydroperoxide and mitogen, useful in, e.g. assessing intracellular deficiencies of vitamin(s).
DC B04 D16
IN BUCCI, L; CRAWFORD, J F; CRAWFORD, F
PA (RERE-N) RES DEV FOUND

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     2000514287 W WO 1997-US10328 19970618, JP 1998-503167 19970618; IL 127576
     A IL 1997-127576 19970618; KR 2000016773 A WO 1997-US10328 19970618, KR
     1998-710382 19981218; EP 925370 B1 EP 1997-930001 19970618, WO
     1997-US10328 19970618; DE 69718017 E DE 1997-618017 19970618, EP
     1997-930001 19970618, WO 1997-US10328 19970618
FDT  AU 9733934 A Based on WO 9748821; EP 925370 A1 Based on WO 9748821; NZ
     333231 A Based on WO 9748821; AU 720703 B Previous Publ. AU 9733934, Based
     on WO 9748821; JP 2000514287 W Based on WO 9748821; KR 2000016773 A Based
     on WO 9748821; EP 925370 B1 Based on WO 9748821; DE 69718017 E Based on EP
     925370, Based on WO 9748821
PRAI US 1996-665941   19960619
IC   ICM  A61K000-00; C12N005-00; C12N005-02; C12N005-06; C12Q001-08
     ICS  A01N001-02; C12N001-38; C12Q001-02; G01N001-00; G01N033-50
FS   CPI

EXF  EXAMINER'S FIELD OF SEARCH   UPE: 20000113
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NCL  US 5985665    A  19991116
     435/014; 435/002; 435/029; 435/372; 435/375; 435/387; 435/004;
     435/040.500; 435/404; 435/405; 435/406

CTCS CITATION COUNTERS
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PNC.GX    1              Citing Patents Count (by examiner)
IAC.GI    0              Citing Issuing Authority Count (by inventor)
IAC.GX    1              Citing Issuing Authority Count (by examiner)

CRC.I     0              Cited Literature References Count (by inventor)
CRC.X     2              Cited Literature References Count (by examiner)
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CDP CITED PATENTS UPD: 20000113

Cited by Examiner

CITING PATENT	CAT	CITED PATENT	ACCNO
WO 9748821	A	No Citations	
US 5985665	A	US 4499064	A 1983-846286/51
	PA:	(RERE-N) RES DEV FOUND; (CLAY-N) CLAYTON FOUND RES	
	IN:	SHIVE, W	
		US 4927762	A 1990-185660/24
	PA:	(CELL-N) CELL ENTERPRISES	
	IN:	DARFLER, F J	

REN LITERATURE CITATIONS UPR: 19980603

Citations by Examiner

CITING PATENT	CAT	CITED LITERATURE
WO 9748821	A	ARCH. BIOCHEM. BIOPHYS., 1976, Vol. 175, NORDBLOM et al., "Studies on Hydroperoxide-Dependent Substrate Hydroxylation by Purified Liver Microsomal Cytochrome P-450", pages 524-533.
WO 9748821	A	ANALYTICAL BIOCHEMISTRY, 1992, Vol. 202, JIANG et al., "Ferrous Ion Oxidation in the Presence of Xylenol Orange for Detection of Lipid Hydroperoxide in Low Density Lipoprotein", pages 384-389.

CGP CITING PATENTS UPG: 20010409

Cited by Examiner

CITED PATENT	CAT	CITING PATENT	ACCNO
US 5985665	A	US 6165797	A 2001-158205/12
	PA:	(BIOD-N) BIO DEFENSE NUTRITIONALS INC	
	IN:	HALSTEAD, B W	

=> fil wpix
FILE 'WPIX' ENTERED AT 17:38:01 ON 26 APR 2003
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FILE LAST UPDATED: 16 APR 2003 <20030416/UP>
MOST RECENT DERWENT UPDATE: 200325 <200325/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

Due to data production problems the WPI file had
to be reset to update 200324.
SDIs for update 24 will be rerun.
The previous SDI run for 24 has been credited.
Also answer sets created after April 10 may at least
temporarily be affected and hence partially invalid.

>>> NEW WEEKLY SDI FREQUENCY AVAILABLE --> see NEWS <<<

>>> SLART (Simultaneous Left and Right Truncation) is now
available in the /ABEX field. An additional search field
/BIX is also provided which comprises both /BI and /ABEX <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

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http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

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GUIDES, PLEASE VISIT:
http://www.derwent.com/userguides/dwpi_guide.html <<<

=> d all abeq tech abex tot

L132 ANSWER 1 OF 7 WPIX (C) 2003 THOMSON DERWENT
AN 2001-158205 [16] WPIX
DNN N2001-115196 DNC C2001-046850
TI Detection of malondialdehyde as indicator of oxidative stress, in urine, using home test kit including basic fuchsin.
DC B04 S03
IN HALSTEAD, B W
PA (BIOD-N) BIO DEFENSE NUTRITIONALS INC
CYC 1
PI US 6165797 A 20001226 (200116)* 3p G01N021-78 <--
ADT US 6165797 A US 1999-253223 19990219
PRAI US 1999-253223 19990219
IC ICM G01N021-78
ICS G01N033-493
AB US 6165797 A UPAB: 20010323
NOVELTY - Malondialdehyde (I) is detected in urine using a reagent comprising acetic acid, sodium metabisulfite, phosphoric acid, basic fuchsin and deionized water.
DETAILED DESCRIPTION - Using a test kit, which comprises a reagent, to detect malondialdehyde (I) in urine comprises:
(1) combining the reagent with the urine sample to produce a colored product and
(2) comparing the color of the product with a reference chart to determine the amount of (I) in the sample.
The reagent comprises:
(i) 90-110 parts of 20% acetic acid;
(ii) 13.5-16.5 parts of ingredient A; and
(iii) 4.5-5.5 parts of ingredient B.
Ingredient A comprises 18-22 g of sodium metabisulfite, 9-11 ml of concentrated phosphoric acid and 450-550 ml of deionized water.
Ingredient B comprises 0.45-0.55 g of basic fuchsin and 90-110 ml of ingredient A.
USE - The process is useful for detection of oxidative stress.
ADVANTAGE - The fuchsin based colorimetric test is rapid and easy to carry out, and can be performed using a home test kit with a small quantity of urine. Retesting after a suitable period of time can assess the adequacy of antioxidant therapy. A color change can typically be observed when the concentration of (I) in urine is greater than 2 ppm.
Dwg.0/0
FS CPI EPI
FA AB; DCN
MC CPI: B04-B04B1; B05-A01B; B05-B02A3; B10-A01; B10-D01; B11-C07B1; B12-K04A
EPI: S03-E04E; S03-E14H

TECH UPTX: 20010323
TECHNOLOGY FOCUS - BIOLOGY - Preferred process: The reagent especially comprises 100 parts of 20% acetic acid, 15 parts of ingredient A and 5 parts of ingredient B. The proportions in ingredient A are especially 20 g of sodium metabisulfite, 10 ml of phosphoric acid and 500 ml of deionized water. The proportions in ingredient B are especially 0.5 g of basic fuchsin to 100 ml of ingredient A.
After the reagent is combined with the urine sample, the mixture is allowed to stand for at least 2 minutes before the color is compared with the reference chart. The test reagent is sealed in an ampoule, then the test sample is injected into the ampule using a plastic bulb.

L132 ANSWER 2 OF 7 WPIX (C) 2003 THOMSON DERWENT
AN 1995-052070 [07] WPIX
DNC C1995-023911
TI Serum-depleted or serum-free culture medium for long-term cell growth - contg. albumin, transferrin, nucleoside(s), growth factor, extracellular matrix material, pyruvate, cholesterol, standard medium etc..
DC B04 D16
IN PONTING, I L O
PA (AMGE-N) AMGEN INC
CYC 49
PI WO 9500632 A1 19950105 (199507)* EN 60p C12N005-06
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE
W: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR KZ LK LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA UZ VN
US 5405772 A 19950411 (199520) 22p C12N005-00 <--
AU 9471124 A 19950117 (199521) C12N005-06
EP 703978 A1 19960403 (199618) EN C12N005-06
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
JP 08508891 W 19960924 (199704) 52p C12N005-06
AU 678836 B 19970612 (199732) C12N005-06
MX 186150 B 19970926 (199850) C12N005-000
JP 2866742 B2 19990308 (199915) 25p C12N005-06
EP 703978 B1 19990818 (199937) EN C12N005-06
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
DE 69420138 E 19990923 (199945) C12N005-06
ES 2135589 T3 19991101 (199953) C12N005-06
ADT WO 9500632 A1 WO 1994-US6893 19940617; US 5405772 A US 1993-79719 19930618; AU 9471124 A AU 1994-71124 19940617; EP 703978 A1 EP 1994-920264 19940617, WO 1994-US6893 19940617; JP 08508891 W WO 1994-US6893 19940617, JP 1995-502993 19940617; AU 678836 B AU 1994-71124 19940617; MX 186150 B MX 1994-4604 19940617; JP 2866742 B2 WO 1994-US6893 19940617, JP 1995-502993 19940617; EP 703978 B1 EP 1994-920264 19940617, WO 1994-US6893 19940617; DE 69420138 E DE 1994-620138 19940617, EP 1994-920264 19940617, WO 1994-US6893 19940617; ES 2135589 T3 EP 1994-920264 19940617
FDT AU 9471124 A Based on WO 9500632; EP 703978 A1 Based on WO 9500632; JP 08508891 W Based on WO 9500632; AU 678836 B Previous Publ. AU 9471124, Based on WO 9500632; JP 2866742 B2 Previous Publ. JP 08508891, Based on WO 9500632; EP 703978 B1 Based on WO 9500632; DE 69420138 E Based on EP 703978, Based on WO 9500632; ES 2135589 T3 Based on EP 703978
PRAI US 1993-79719 19930618
REP 1.Jnl.Ref; WO 9218615; WO 9309220
IC ICM C12N005-00; C12N005-000; C12N005-06
ICS C12N005-002; C12N005-006; C12N005-08
ICI C12N005-06, C12R001:91
AB WO 9500632 A UPAB: 19960625
A serum-depleted or serum-free medium for the long-term proliferation and development of cells comprises (a) a standard culture medium, (b) serum albumin, (c) transferrin, (d) a source of lipids and fatty acids, (e) cholesterol, (f) a reducing agent, (g) pyruvate, (h) nucleosides for synthesis of DNA and RNA, (i) at least one growth factor that stimulates the proliferation and development of stromal cells, tissue cells or organ

cells, and (j) at least one extracellular matrix (ECM) material.

USE - The medium can be used for both short and long-term maintenance of proliferation and development of cells, including fibroblasts, glial cells, neuronal cells, adipocytes, myoblasts, epithelial cells, hepatocytes, osteoclasts, heart muscle cells and lymphopoietic cells, and partic. haematopoietic cells. The medium can be used to stimulate the proliferation and/or development of early progenitor cells for bone marrow transplants and/or gene transfer into these cells for gene therapy for treating immunological or haematological disorders, e.g. severe combined immunodeficiency, adenosine deaminase deficiency and AIDS. The medium can also be used to determine the function of a novel gene by adding an anti-sense oligomer to inhibit expression.

ADVANTAGE - The chemically defined medium can provide growth of primal cells as well as immortalised cell lines and development for up to several months. The medium allows the growth of hemopoietic cells and the stromal cells that support them.

Dwg.0/7

FS CPI
FA AB; DCN
MC CPI: B01-D02; B04-B01B; B04-B04D4; D05-H01
ABEQ US 5405772 A UPAB: 19950530

Medium for long-term proliferation and development of cells comprises (a) 0.8-1.09 times standard culture medium; (b) 3-50 mg per ml serum albumin; (c) 25-1000 micro-g/ml transferrin; (d) 5-100 micro-g/ml lipids and fatty acids; (e) 3-30 micro-g/mol cholesterol; (f) 30-300 microM reducing agent; (g) 30-500 micro-g/ml pyruvate; (h) 5-30 micro-g/ml nucleosides; (i) growth factor; and (j) extracellular matrix material(s).

Cpd. (i) comprises 5-200 ng per mol. epidermal growth factor, 0.5-40 ng per ml fibroblast growth factor, 2-200 ng/ml platelet-derived growth factor, and/or 2-100 micro-g/ml insulin. Cpd. (j) comprises 2-100 micro-g/cm2 collagen IV and/or 0.5-100 micro-g/cm2 fibronectin.

USE - Used for culturing adipocytes, macrophages, endothelial cells, fibroblasts and haematopoietic progenitor cells.

Dwg.0/8

L132 ANSWER 3 OF 7 WPIX (C) 2003 THOMSON DERWENT
AN 1994-074311 [09] WPIX
CR 1989-317523 [44]; 1990-194723 [26]; 1991-231513 [32]; 1993-351356 [44]; 1994-008103 [02]; 1995-365221 [43]
DNC C1994-033793
TI Whey protein compsn. useful to improve humoral immune response - contg. undenatured whey protein concentrate opt. with vitamins B1 and B2.
DC B04 D13
IN BOUNOUS, G; GOLD, P; KONGSHAVN, P A L
PA (IMMU-N) IMMUNOTEC RES CORP LTD
CYC 1
PI US 5290571 A 19940301 (199409)* 19p A61K035-20 <--
ADT US 5290571 A Cont of US 1988-188271 19880429, CIP of US 1988-289971 19881223, US 1989-417246 19891004
PRAI US 1989-417246 19891004; US 1988-188271 19880429; US 1988-289971 19881223
IC ICM A61K035-20
AB US 5290571 A UPAB: 19951204

Whey protein compsn. (I) comprises undentured whey protein concentrate obtd. from raw borine, goat or sheep milk and contg. oil and heat labile whey protein present in the raw milk, in an amt. of 18-28g of whey protein per 100g of compsn., vitamin B1 and in amt. of at least 1.5 (pref. 1.5-2.o) mg per 100g compsn. and Vitamin B2 in an amt. of at least 1.5 (pref. 1.5-2.0)mg per 100g compsn..

Also claimed is a method of improving the immune response in mammals as measured by sheep red blood cell injection by oral admin. of (I), the vitamins B1 and B2 being admin. in amts. in excess of minimum daily requirements. Embodiments also claimed include admin. of the compsn.

comprising vitamin B2 and an amt. in excess of minimum daily requirements and the undenatured whey protein concentrate in an amt. sufficient to satisfy the daily requirements of protein of the mammal; and admin. of the whey protein concentrate having immuno-enhancing properties which are heat labile, insensitive to pancreatic digestion and dependent upon the undenatured state.

USE - Oral admin. of (I) increases the concn. level of glutathione in the organs of mammals and enhances resistance to bacterial infection, partic. pneumococcal infection and slow growing carcinoma such as colon carcinoma.

In an example, C3H/HeJ mice fed a diet contg. 20g undenatured whey protein (U-Lacp)/100g diet showed improved survival after i.v. infection with Streptococcus pneumanial type 3 and compared to similarly infected mice fed a 20g C/diet of similar nutritional efficiency.

Dwg.0/12

Dwg.0/12

FS CPI
FA AB; DCN
MC CPI: B03-B; B03-C; B04-N02; B14-G01; D03-B02

L132 ANSWER 4 OF 7 WPIX (C) 2003 THOMSON DERWENT
AN 1993-008659 [01] WPIX
CR 1993-302719 [38]; 1994-091597 [11]
DNC C1993-004029
TI New 2-homo cysteine-5-sulphoximine and R-diastereoisomer and homologues - causes depletion of glutathione esp. in heart and liver.
DC B05
IN GRIFFITH, O W
PA (CORR) CORNELL RES FOUND INC
CYC 1
PI US 5171885 A 19921215 (199301)* 6p C07C053-128 <--
ADT US 5171885 A Cont of US 1989-359886 19890601, US 1991-715898 19910619
PRAI US 1989-359886 19890601; US 1991-715898 19910619
IC ICM C07C053-128
AB US 5171885 A UPAB: 19940428
Pure L-(S-(3-6C alkyl)) homocysteine-S-sulphoximes and their acid-addition salts are new.

L-Buthionine-S-sulphoxime and the diastereoisomeric L-buthionine-R-sulphoxime, in pure form, and their acid-addition salts, are specifically claimed. These cpds. have the formulae (I) and (II) respectively.

USE - (I) has use, e.g. in causing the depletion of glutathione, a major protectant molecule in tumours and certain parasites. (II) has use as a cpd. decreasing further uptake of (I) by heart and liver. Since decreased uptake of (I) is associated with smaller decreases in glutathione content, heart and liver would be partially protected from the adverse effects of glutathione depletion. The pure diastereoisomer can be administered alone or with a carrier either orally or parenterally, e.g. at daily dosages in the range 0.1-30 mM/kg.

Dwg.0/0

13

Dwg.0/0

FS CPI
FA AB; GI; DCN
MC CPI: B10-A01

L132 ANSWER 5 OF 7 WPIX (C) 2003 THOMSON DERWENT
AN 1992-293906 [36] WPIX
DNC C1992-130644
TI Serum-free media for culturing animal cells - contg. specified amt. of methionine.
DC B04 D16
IN ARAKAWA, H; NISHINO, T; SAKAI, C; TORISHIMA, H; YAMAMOTO, R

PA (KURB) KURASHIKI BOSEKI KK; (KURB) KURABO IND LTD
CYC 7
PI EP 501435 A1 19920902 (199236)* EN 20p C12N005-00
R: DE FR GB IT NL
JP 04271779 A 19920928 (199245) 15p C12N005-06
US 5326699 A 19940705 (199426) 6p C12N005-00 <--
JP 07089908 B2 19951004 (199544) 11p C12N005-06
EP 501435 B1 19981028 (199847) EN C12N005-00
R: DE FR GB IT NL
DE 69227392 E 19981203 (199903) C12N005-00
ADT EP 501435 A1 EP 1992-103224 19920226; JP 04271779 A JP 1991-34150 19910228; US 5326699 A Cont of US 1992-842980 19920228, US 1993-120235 19930914; JP 07089908 B2 JP 1991-34150 19910228; EP 501435 B1 EP 1992-103224 19920226; DE 69227392 E DE 1992-627392 19920226, EP 1992-103224 19920226
FDT JP 07089908 B2 Based on JP 04271779; DE 69227392 E Based on EP 501435
PRAI JP 1991-34150 19910228
REP 5.Jnl.Ref; EP 354129; FR 1283157; US 4767704; WO 9007007
IC ICM C12N005-06
AB EP 501435 A UPAB: 19931112
Serum-free media for culturing animal cells contain 8-14 mg/l of methionine (I).
The compsns. contain 5-11.5 mg/l threonine, 7-11 mg/l tyrosine, 9-14.5 mg/l phenylalanine, 400-500 mg/l glutamine, 7-9.5 mg/l aspartic acid, 19-28 mg/l lysine.HCl, 33-40 mg/l serine and 0-0.1 mM CaCl2 (N.B., 'mg/l' is given as 'mg/ml' in the claims).
USE/ADVANTAGE - The media are esp. useful for culturing epithelial cells, e.g., epidermal keratinocytes and corneal epithelial cells. The media provide better growth than media contg. different amts. of (I)
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-B04A3; B10-B02D; B11-A; D05-H01; D05-H08
ABEQ US 5326699 A UPAB: 19940817
Serum free medium for culturing animal epithelial cells comprises 9-14 mg/l methionine, 5-11.5 mg/l phenylalanine, 400-550 mg/l glutamine, 7-9.5 mg/l aspartic acid, 19-28 mg/l lysine HCl, 33-40 mg/l serine and up to 0.1 mM Ca in the form CaCl2, and one or more conventional ingredients selected from glucose, vitamins, minerals, growth factors, HEPES and amino acids other than those above pref. ala, arg, asp, cys, glutamic acid, gly, his, ile, leu, pro, try, val and their alkaline or and salts.
USE - For culturing animal cells pref. epithelial cells.
Dwg.0/0

L132 ANSWER 6 OF 7 WPIX (C) 2003 THOMSON DERWENT
AN 1990-185660 [24] WPIX
DNC C1990-080475
TI Chemically defined, serum-free medium for cells - contg. cpd. having one free thiol gp. to remove toxicity due to oxidising agents present in basal media.
DC B04 B05 D16
IN DARFLER, F J
PA (CELL-N) CELL ENTERPRISES
CYC 1
PI US 4927762 A 19900522 (199024)* <--
ADT US 4927762 A US 1988-281974 19881130
PRAI US 1986-846716 19860401; US 1988-281974 19881130
IC C12N001-38; C12N005-00
AB US 4927762 A UPAB: 19930928
A chemically defined, serum-free medium for the maintenance or growth of immortal or immortalised cells is claimed which comprises a cell growth promoting amt. of a cpd. (I) having one free thiol gp. and which is capable of supporting the growth of immortal or immortalised cells at seed

densities less than x 10 power (5) cells/ml. Pref. (I) is of formula (Ia) SH-CR1R2-CR3R4R5 (Ia) (R1, R4 = H, NH2 or NH (CO) CH3; R5 = COO-, SO3-, or CH2SO3- esp. thiolactate. The medium may also contain insulin or transferrin.

Also claimed is a supplemental cell culture medium consisting of transferrin, insulin, ethanolamine, a selenium salt, an unsatd. fatty acid and a cell-growth promoting amt. of a cpd. (II) having one free thiol gp. where the medium, when added to a basal cell culture medium, supports the growth of hybridoma cells at seed densities of less than 10 5 cells/ml. (II) may be e.g. N-acetylcysteine, D- or L-pencillamine, 2-mercaptothanesulphonic acid (MENSA' or mercaptopropionic acid (MPA).

ADVANTAGE - The cpds. are protective agents that remove toxicity due to oxidising agents ordinarily present in basal tissue culture media. They support the long-term growth of lymphoid cells, including hybridomas, even at low seed densities. @

0/0

FS CPI

FA AB; DCN

MC CPI: B04-B02D2; B04-B04A6; B05-B02C; B10-A09B; B10-B02D; B10-B04B; B10-C04D; B10-C04E; B11-A; D05-H01

L132 ANSWER 7 OF 7 WPIX (C) 2003 THOMSON DERWENT

AN 1983-846286 [51] WPIX

DNC C1983-123493

TI Culture medium contg. nutrients, metals, vitamin(s) etc. - useful in lymphocyte assays for nutritional status in subject.

DC B04 D16

IN SHIVE, W

PA (RERE-N) RES DEV FOUND; (CLAY-N) CLAYTON FOUND RES

CYC 22

PI EP 96560 A 19831221 (198351)* EN 35p
R: AT BE CH DE FR IT LI LU NL SE
AU 8315364 A 19831208 (198405)
GB 2124366 A 19840215 (198407)
NO 8301985 A 19831227 (198407)
DK 8302543 A 19840123 (198411)
FI 8302005 A 19840131 (198411)
ZA 8304018 A 19840216 (198426)
PT 76808 A 19841018 (198447)
ES 8405953 A 19841001 (198449)
US 4499064 A 19850212 (198509) <--
CA 1199883 A 19860128 (198609)
GB 2124366 B 19861112 (198646)
EP 96560 B 19870506 (198718) EN
R: AT BE CH DE FR IT LI LU NL SE
DE 3371362 G 19870611 (198724)
IL 68873 A 19870331 (198724)
KR 8900729 B 19890330 (198941)
DK 172418 B 19980602 (199828) C12N005-02

ADT EP 96560 A EP 1983-303225 19830603; GB 2124366 A GB 1983-15287 19830603; ZA 8304018 A ZA 1983-4018 19830603; US 4499064 A US 1983-492308 19830506; DK 172418 B DK 1983-2543 19830603

FDT DK 172418 B Previous Publ. DK 8302543

PRAI US 1982-383822 19820603; US 1982-384822 19820603; US 1983-492308 19830506

REP EP 66284; US 3128228

IC A61B010-00; C12N005-00; C12Q001-04; C12Q003-00; G01N001-00; G01N033-50
ICM C12N005-02
ICS A61B010-00; C12N005-00; C12Q001-02; C12Q001-04; C12Q003-00; G01N001-00; G01N033-50

AB EP 96560 A UPAB: 19930925

Culture medium for quantitative lymphocyte assay of the nutritional status of an individual comprises a buffered serum-free soln., including (1)

glucose or a substance capable of producing it as a metabolic prod.; (2) the amino acids arginine, cysteine, glutamine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, serine, threonine, tryptophan, tyrosine and valine(all in L-form) and glycine, these acids being present as a gp. each in an amount up to the amount in a normal blood range; (3) pantothenate opt. with biotin, folinic acid, nicotinamide or nicotinic acid, riboflavin, thiamine, vitamin B6 and/or vitamin B12; (4) Cl, SO4, PO4, Ca, Mg, K, Na and ferrous ions; (5) adenine and choline or their precursors, inositol, and pyruvate or another effective metabolite; (6) a nitrogen to stimulate lymphocytes being assayed; and (7) deionised water. The buffer is at pH 6.8-7.6.

Lymphocytes from small blood samples are readily available on a routine basis and are metabolically inactive until activated by a mitogen, so that they carry information about past nutritional status and have little day-to-day variation in nutritional responses.

0/0

FS CPI

FA AB

MC CPI: B04-A07F; B04-B04A; B04-B04D; B11-C07; B12-K04; D05-H01

ABEQ EP 96560 B UPAB: 19930925

A cell culture medium for culturing lymphocytes comprising a buffered, serum-free solution in deionised water, of the following components:- (a) glucose or a carbohydrate which is capable of being converted metabolically to glucose; (b) choline or a precursor of choline; (c) an inorganic ion supplement comprising chloride, phosphate, calcium,magnersium, potassium, sodium and iron ions; (d) a mitogen to stimulate the metabolic activity of lymphocytes; and (e) an amino acid supplement comprising L-argine, L-cysteine, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-serine, L-threonine, L-tryptophan, L-tyrosine and L-valine, and/or (f) a vitamin supplement comprising one or more vitamins selected from pantothenic acid, biotin, folinic acid, nicotinamide or nicotinic acid, riboflavin, thiamin, vitamin B and vitamin B12; said buffered, serum-free solution having a pH in the range of from 6.8 to 7.6.

ABEQ GB 2124366 B UPAB: 19930925

A cell culture medium for culturing lymphocytes comprising a buffered, serum-free solution in deionised water, of the following components:- a) glucose or a carbohydrate which is capable of being converted metabolically to glucose; b) choline or a precursor of choline; c) an inorganic ion supplement comprising chloride, sulphate, phosphate, calcium, magnesium, potassium, sodium and iron ions; d) a mitogen to stimulate the metabolic activity of lymphocytes; and e) an amino acid supplement comprising L-arginine, L-cysteine, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-serine, L-threonine, L-tryptophan, L-tyrosine and L-valine; and f) a vitamin supplement comprising one or more vitamins selected from pantothenic acid, biotin, folinic acid, nicotinamide or nicotinic acid, riboflavin, thiamin, vitamin B6 and vitamin B12; said buffered serum-free solution having a pH in the range of from 6.8 to 7.6.

ABEQ US 4499064 A UPAB: 19930925

Cell culture medium comprises a buffered, serum-free soln. contg. (1) glucose or cpd. biologically capable of producing glucose in the cells, (2) biologically usable form of pantothenic acid, (3) choline or a substance producing it in the cells, (4) Cl, PO4, Ca, Mg, K, Na and Fe ions, (5) deionised water and (6) a mitogen to stimulate lymphocytes. The soln. has pH 6.8-7.6.

USE - For lymphocyte assay of nutritional and biochemical status of cells from human beings. Nutritional and biochemical deficiencies and inadequacies and imbalances of the lymphocytes can be determined when the medium is supplemented with an aminoacid or vitamin nutrient supplement. The nutrient being tested is omitted from or is present in limiting or inhibitory amts. in the nutrient supplement.

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=> fil medline
FILE 'MEDLINE' ENTERED AT 17:39:43 ON 26 APR 2003

 FILE LAST UPDATED: 26 APR 2003 (20030426/UP). FILE COVERS 1958 TO DATE.

 On April 13, 2003, MEDLINE was reloaded. See HELP RLOAD for details.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2003 vocabulary. See http://www.nlm.nih.gov/mesh/changes2003.html
 for a description on changes.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d all l133

L133 ANSWER 1 OF 1     MEDLINE
AN   76267486     MEDLINE
DN   76267486   PubMed ID: 8710
TI   Studies on hydroperoxide-dependent substrate hydroxylation by purified
     liver microsomal cytochrome P-450.
AU   Nordblom G D; White R E; Coon M J
SO   ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (1976 Aug) 175
     (2) 524-33.
     Journal code: 0372430. ISSN: 0003-9861.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   197610
ED   Entered STN: 19900313
     Last Updated on STN: 19970203
     Entered Medline: 19761029
CT   Check Tags: Animal; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't,
     P.H.S.
     *Cytochrome P-450 Enzyme System: ME, metabolism
      Hydrogen-Ion Concentration
      Kinetics
      Microsomes, Liver: DE, drug effects
     *Microsomes, Liver: EN, enzymology
     *Mixed Function Oxygenases: ME, metabolism
      Oxidoreductases, N-Demethylating: ME, metabolism
      Oxygen
     *Peroxides: PD, pharmacology
      Rabbits
      Structure-Activity Relationship
RN   7782-44-7 (Oxygen); 9035-51-2 (Cytochrome P-450 Enzyme System)
CN   0 (Peroxides); EC 1.- (Mixed Function Oxygenases); EC 1.5.
     (Oxidoreductases, N-Demethylating)


=> d all l134

L134 ANSWER 1 OF 1     MEDLINE
AN   92391672     MEDLINE
DN   92391672   PubMed ID: 1519766
TI   Ferrous ion oxidation in the presence of xylenol orange for detection of
     lipid hydroperoxide in low density lipoprotein.
AU   Jiang Z Y; Hunt J V; Wolff S P
CS   Department of Clinical Pharmacology, University College and Middlesex
     School of Medicine, London.
SO   ANALYTICAL BIOCHEMISTRY, (1992 May 1) 202 (2)
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384-9.
Journal code: 0370535. ISSN: 0003-2697.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199210
ED Entered STN: 19921023
Last Updated on STN: 19921023
Entered Medline: 19921007
AB A simple and sensitive method for the direct measurement of lipid peroxides in lipoprotein and liposomes is described. The method is based on the principle of the rapid peroxide-mediated oxidation of Fe2+ to Fe3+ under acidic conditions. The latter, in the presence of xylenol orange, forms a Fe(3+)-xylenol orange complex which can be measured spectrophotometrically at 560 nm. Calibration with standard peroxides, such as hydrogen peroxide, linoleic hydroperoxide, t-butyl hydroperoxide, and cumene hydroperoxide gives a mean apparent extinction coefficient of 4.52 x 10(4) M-1 cm-1 consistent with a chain length of approximately 3 for ferrous ion oxidation by hydroperoxides. Endoperoxides are less reactive or unreactive in the assay. The assay has been validated in the study of lipid peroxidation of low density lipoprotein and phosphatidyl choline liposomes. By pretreatment with enzymes known to metabolize peroxides, we have shown that the assay measures lipid hydroperoxides specifically. Other methods for measuring peroxidation, such as the assessment of conjugated diene, thiobarbituric acid reactive substances and an iodometric assay have been compared with the ferrous oxidation-xylenol orange assay.
CT Check Tags: Human; Support, Non-U.S. Gov't
*Ferrous Compounds: AN, analysis
*Fluorescent Dyes
*Linoleic Acids: AN, analysis
*Lipid Peroxides: AN, analysis
Lipoproteins, LDL: BL, blood
*Lipoproteins, LDL: CH, chemistry
Liposomes
Oxidation-Reduction
*Xylenes: CH, chemistry
RN 1611-35-4 (xylenol orange); 25657-09-4 (linoleic acid hydroperoxide)
CN 0 (Ferrous Compounds); 0 (Fluorescent Dyes); 0 (Linoleic Acids); 0 (Lipid Peroxides); 0 (Lipoproteins, LDL); 0 (Liposomes); 0 (Xylenes)

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 17:40:23 ON 26 APR 2003
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FILE COVERS 1907 - 26 Apr 2003 VOL 138 ISS 18
FILE LAST UPDATED: 25 Apr 2003 (20030425/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all

L135 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS
AN 1976:474184 HCAPLUS
DN 85:74184
TI Studies on hydroperoxide-dependent substrate hydroxylation by purified liver microsomal cytochrome P-450
AU **Nordblom, Gerald D.**; White, Ronald E.; Coon, Minor J.
CS Med. Sch., Univ. Michigan, Ann Arbor, MI, USA
SO **Archives of Biochemistry and Biophysics (1976), 175**(2), **524**-33
CODEN: ABBIA4; ISSN: 0003-9861
DT Journal
LA English
CC 7-3 (Enzymes)
AB Highly purified liver microsomal cytochrome P 450 (I) catalyzes the hydroperoxide-dependent hydroxylation of a variety of substrates in the absence of NADPH, NADPH-I reductase, and mol. O. The addn. of phosphatidylcholine is necessary for maximal activity. The absence of flavoproteins and cytochrome b5 from the I prepns. rules out the involvement of other known microsomal electron carriers. The Fe+ form of I is not involved in peroxide-dependent hydroxylation reactions, as indicated by the lack of inhibition by CO. With cumene hydroperoxide (II) present, a variety of substrates is attacked, including N-methylaniline, N,N'-dimethylaniline, cyclohexane, benzphetamine, and aminopyrine. With benzphetamine as the substrate, II may be replaced by other peroxides, including H2O3, or by peracids or Na chlorite. A study of the stoichiometry indicated that equimolar amts. of N-methylaniline, formaldehyde, and cumyl alc. (.alpha.,.alpha.-dimethylbenzyl alc.) are formed in the reaction of N,N-dimethylaniline with II. Since H218O is incorporated only slightly into cyclohexanol in the reaction of cyclohexane with II, it appears that the O atom in cyclohexanol is derived primarily from the peroxide. The data obtained are in accord with a peroxidase-like mechanism for the action of I.
ST cytochrome P450 substrate hydroxylation; cumene hydroperoxide cytochrome P450
IT Hydroxylation
(by cytochrome P 450, hydroperoxides in)
IT Hydroperoxides
RL: BIOL (Biological study)
(in cytochrome P450 substrate hydroxylation)
IT 58-15-1 100-61-8 103-67-3 110-68-9 110-82-7, biological studies
121-69-7 156-08-1 935-67-1
RL: BIOL (Biological study)
(cytochrome P 450 action on)
IT 9035-51-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydroxylation by, hydroperoxides in)
IT 80-15-9
RL: BIOL (Biological study)
(in cytochrome P 450 substrate hydroxylation)

=> d his

(FILE 'HCAPLUS' ENTERED AT 16:37:35 ON 26 APR 2003)
DEL HIS

FILE 'REGISTRY' ENTERED AT 16:37:39 ON 26 APR 2003

```
L1            3 S 52-90-4 OR 921-01-7 OR 3374-22-9
                E N-ACETYL-L-CYSTEINE/CN
L2            1 S E3
                E PANTOTHENIC ACID/CN
L3            1 S E3
                E CHOLINE/CN
L4            1 S E3
                E THYMIDINE/CN
L5            3 S E3
L6           47 S C10H14N2O4/MF AND OC4/ES AND NCNC3/ES
L7          154 S (3H OR H3)(L)THYMIDINE
L8            6 S L7 AND 2/NR
L9            4 S L8 NOT P/ELS
L10           7 S L6 AND (T OR D)/ELS
L11           1 S 172294-32-5
L12           5 S L9,L11
                E CUMENE HYDROPEROXIDE/CN
L13           1 S E3
                E CHLORIDE, ION/CN
                E CHLORINE, ION/CN
L14           2 S E9,E20
L15          32 S CHLORINE AND ION AND 1/ATC AND 1/ELC.SUB
L16          22 S L15 NOT ISOTOPE
L17          20 S L16 NOT (37CL1 OR 35CL1)
                E PHOSPHATE, ION/CN
                E PHOSPHATE/CN
L18           1 S E3
                E CALCIUM, ION/CN
L19           2 S E10,E23
L20          31 S CALCIUM AND ION AND 1/ATC AND 1/ELC.SUB
L21          22 S L20 NOT ISOTOPE
                E MAGNESIUM, ION/CN
L22           2 S E4,E38
L23          29 S MAGNESIUM AND ION AND 1/ATC AND 1/ELC.SUB
L24          15 S L23 NOT ISOTOPE
                E POTASSIUM, ION/CN
L25           1 S E6
L26          23 S POTASSIUM AND ION AND 1/ATC AND 1/ELC.SUB
L27          20 S L26 NOT ISOTOPE
                E SODIUM, ION/CN
L28           1 S E4
L29          16 S SODIUM AND ION AND 1/ATC AND 1/ELC.SUB
L30          13 S L29 NOT ISOTOPE
                E IRON, ION/CN
L31           1 S E6
L32          28 S IRON AND ION AND 1/ATC AND 1/ELC.SUB NOT ISOTOPE
L33           6 S (CHLORINE OR CALCIUM OR MAGNESIUM OR POTASSIUM OR SODIUM OR I
L34           1 S PHOSPHORIC ACID/CN
L35           1 S WATER/CN
L36           9 S C5H9NO3S/MF AND CYSTEINE AND ACETYL
L37           3 S L36 NOT (14C# OR D/ELS OR 35S OR ESTER OR PROPANOIC)

     FILE 'HCAPLUS' ENTERED AT 16:54:20 ON 26 APR 2003
L38        4758 S L2
L39        4777 S L37
L40        2346 S N ACETYL (1W) CYSTEINE
L41        4056 S N ACETYLCYSTEINE
L42          19 S L()(ACETYLCYSTEINE OR ACETYL CYSTEINE)
L43        5363 S ACETYLCYSTEINE OR ACETYL CYSTEINE
L44        7201 S L38-L43
L45        3439 S L3
L46       10269 S L4
L47       50295 S PANTOTHENIC ACID OR CHOLINE
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L48          224 S VITAMIN B5
L49          314 S VITAMIN B3
L50         3787 S PANTOTHENATE
L51        53009 S L46-L50
L52         5128 S L14,L17,L18,L19,L21,L22,L24,L27,L25,L28,L39,L31,L32,L33,L34 A
L53        23705 S (CHLORIDE OR PHOSPHATE OR CALCIUM OR MAGNESIUM OR POTASSIUM O
L54        23854 S L52,L53
L55         5456 S L13
L56         7373 S (CUMENYL OR CUMYL OR CUMEN#)()(HYDROPEROXIDE OR HYDRO PEROXID
L57           68 S PERCUMYL H
L58          422 S PERCUMYL
L59          567 S ISOPROPYLBENZENE HYDROPEROXIDE
L60           73 S CUMENEHYDROPEROXIDE OR CUMYLHYDROPEROXIDE OR CUMENYLHYDROPERO
L61           10 S KAYACUMEN#
L62            4 S L54 AND L55-L61
L63            2 S L62 NOT (IDB OR HELMINTH)/TI
L64           71 S L54 AND L44
L65            1 S L64 AND L55-L61
L66            3 S L64 AND LYMPHOCYT?
L67            2 S L66 NOT AZT
L68            3 S L63,L67
L69          360 S L1 AND L51
L70          889 S CYSTEINE AND L51
L71            4 S L69,L70 AND L55-L61
L72            2 S L71 AND L54
L73            3 S L68,L72
L74            2 S L71 NOT L73
L75        21435 S (H3 OR 3H)(S)THYMIDIN?
L76          621 S L12
L77         7249 S L5
L78          120 S L75-L77 AND L51
L79           48 S L78 AND L54
L80            0 S L78 AND L55-L61
L81            1 S L79 AND LYMPHOCYT?
L82            0 S L79 AND L44
L83           16 S L79 AND L69,L70
L84           13 S L83 AND (CULTUR? OR MEDIUM OR MEDIA)
                 SEL DN AN 1 5-9
L85            6 S E1-E18
L86            9 S L68,L85
L87           64 S L54 AND FREE(1A)SERUM
L88           14 S L87 AND (L1 OR CYSTEINE)
L89           17 S L86,L88
                 SEL DN AN 3 8 17
L90           14 S L89 NOT E19-E27
                 SEL DN AN 2
L91            1 S E28-E30
L92           14 S L90,L91
                 E CRAWFORD J/AU
L93          112 S E3,E11-E13
L94            5 S E117
L95           41 S E107
L96            2 S L93-L95 AND L44,L51
L97            2 S L93-L95 AND L55-L61
L98            0 S L93-L95 AND L75-L77
L99           15 S L92,L96,L97

     FILE 'HCAPLUS' ENTERED AT 17:20:44 ON 26 APR 2003
L100          15 S L99 AND L38-L99

     FILE 'WPIX' ENTERED AT 17:21:43 ON 26 APR 2003
                 E US20020068270/PN
L101           1 S E3
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L102        4556 S L47/BIX
L103         323 S L48/BIX OR L49/BIX OR L59/BIX
L104        1352 S (R00467 OR R00231)/DCN OR (0467 OR 0231)/DRN
L105        5335 S L102-L104
L106        1739 S L56/BIX OR L57/BIX OR L58/BIX OR L59/BIX OR L60/BIX OR L61/BI
L107        1792 S R00474/DCN OR 0474/DRN
L108         122 S L105 AND L106,L107
                 E R04369+ALL/DCN
                 E R11179+ALL/DCN
                 E R06646+ALL/DCN
L109        1610 S E1
                 E R06671+ALL/DCN
L110         840 S E1
                 E R060311+ALL/DCN
                 E R06031+ALL/DCN
L111         816 S E1
                 E R07107+ALL/DCN
L112        1197 S E1
                 E R06645+ALL/DCN
L113        1231 S E1
                 E R06108+ALL/DCN
L114        1016 S E1
                 E R04811+ALL/DCN
L115         941 S E1
                 E R04810+ALL/DCN
L116         830 S E1
L117           2 S L108 AND L109-L116
L118           1 S L108 AND R04369/DCN
L119         700 S L40/BIX OR L41/BIX OR L42/BIX OR L43/BIX
L120           0 S L119 AND L108
L121           1 S CYSTEINE/BIX AND L108
L122           2 S L117,L118,L121
L123           2 S C12N005/IC,ICM,ICS AND L108
L124           0 S G01N003/IC,ICM,ICS AND L108
L125           4 S C12Q001/IC,ICM,ICS AND L108
L126           4 S L122,L123,L125
L127           2 S L126 AND CULTURE MEDIUM/TI

     FILE 'WPIX' ENTERED AT 17:33:14 ON 26 APR 2003

     FILE 'DPCI' ENTERED AT 17:33:26 ON 26 APR 2003
                 E WO9810092/PN
L128           1 S E3
                 E WO9748821/PN
L129           1 S E3

     FILE 'DPCI' ENTERED AT 17:34:10 ON 26 APR 2003

     FILE 'WPIX' ENTERED AT 17:36:54 ON 26 APR 2003
L130           8 S (US5985665 OR US4927762 OR US5171885 OR US5290571 OR US532669
L131           1 S US5985665/PN
L132           7 S L130,L131 NOT L127

     FILE 'WPIX' ENTERED AT 17:38:01 ON 26 APR 2003

     FILE 'MEDLINE' ENTERED AT 17:38:31 ON 26 APR 2003
                 E ARCH BIOCHEM BIOPHYS/JT
L133           1 S E3 AND 1976/PY AND NORDBLOM?/AU AND (175 AND 524)/SO
                 E ANAL BIOCHEM/JT
L134           1 S E3 AND 1992/PY AND JIANG?/AU AND (202 AND 384)/SO

     FILE 'MEDLINE' ENTERED AT 17:39:43 ON 26 APR 2003
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FILE 'HCAPLUS' ENTERED AT 17:39:56 ON 26 APR 2003
E ARCH BIOCHEM BIOPHYS/JT
L135 1 S E3 AND NORDBLOM?/AU AND 1976/PY AND (175 AND 524)/SO

FILE 'HCAPLUS' ENTERED AT 17:40:23 ON 26 APR 2003